

JULY, 1921

# THE MINING CONGRESS JOURNAL

VOLUME 7

NUMBER 7



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Internal Revenue Bureau Goes  
Into High Speed

War Minerals Situation Under  
Review

Contribution of Metal Products  
To Nation's Prosperity

Half-Billion Dollar Burden  
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The Mining News Mirrored  
From Washington

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War Minerals Relief Commissioner

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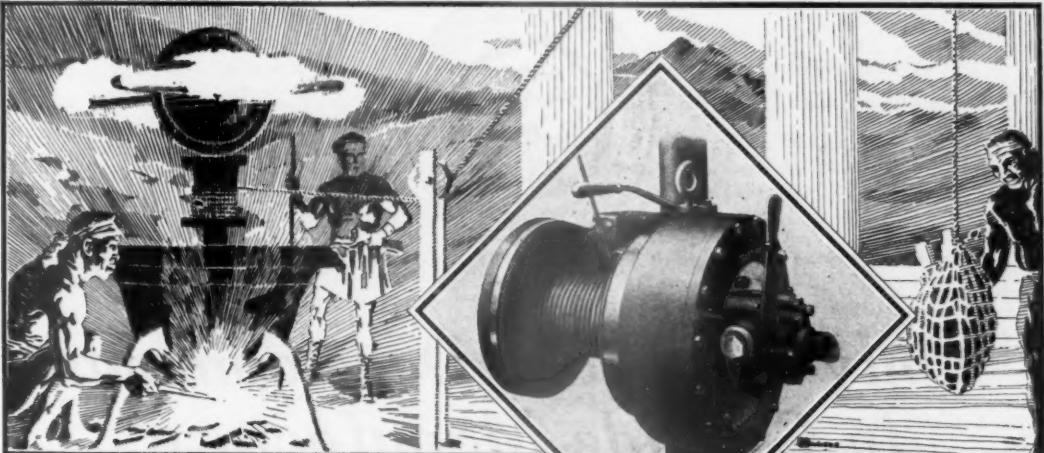
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JULY

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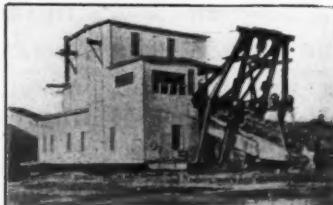
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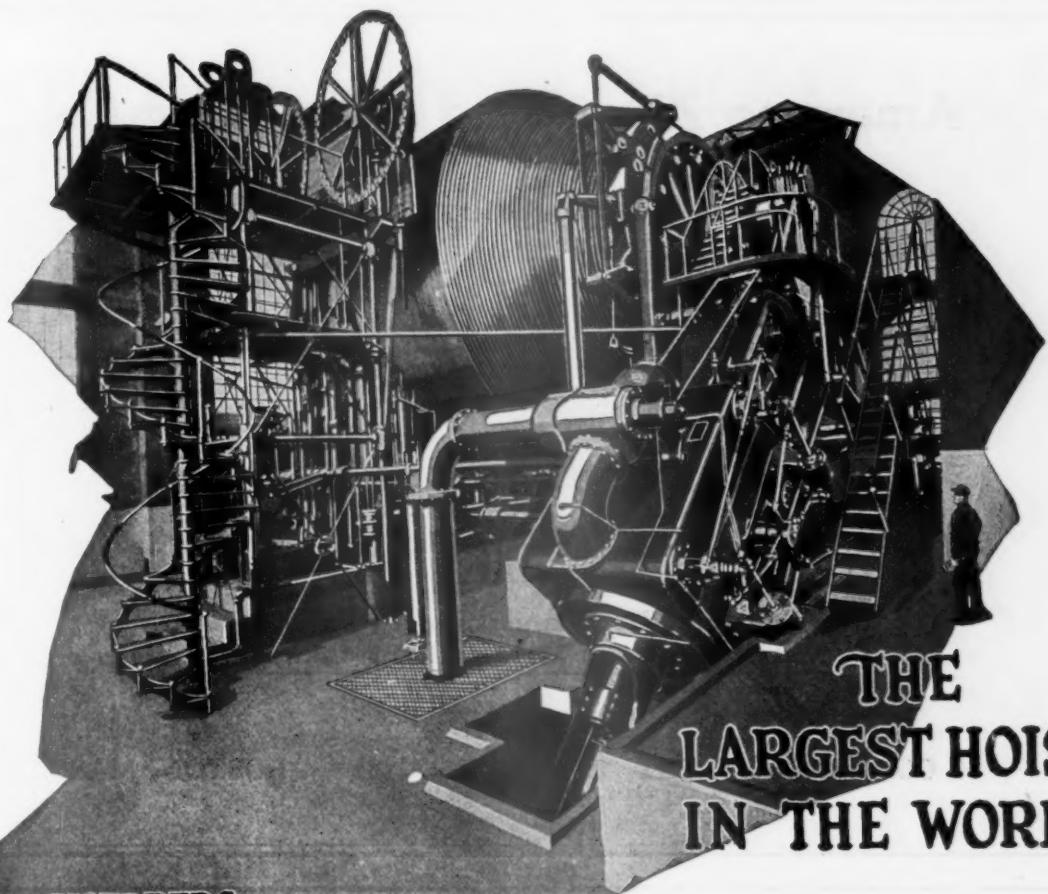
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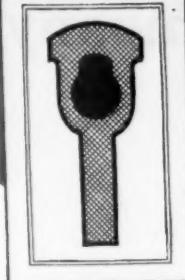
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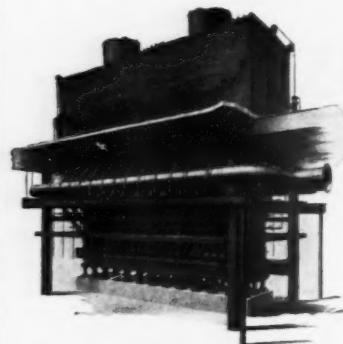
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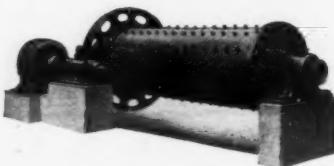
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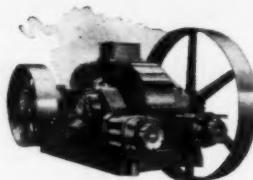
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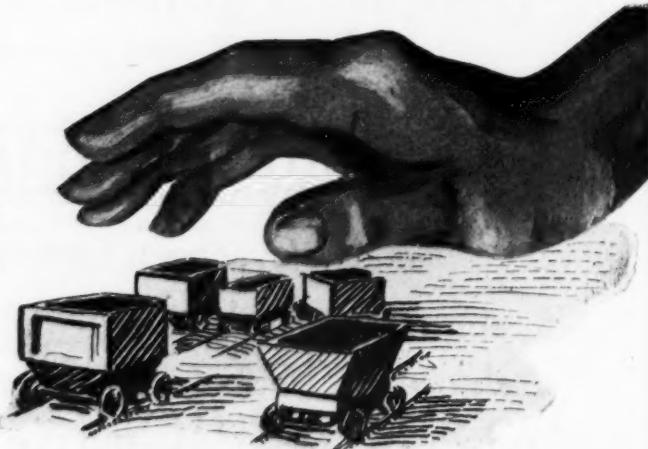
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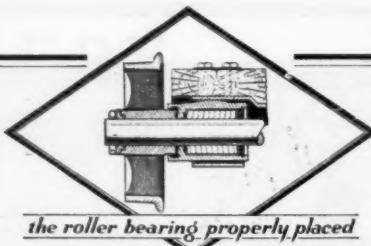
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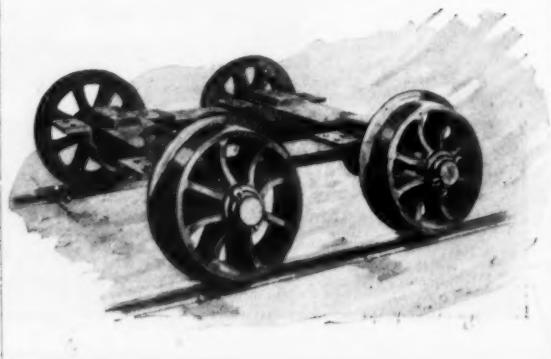
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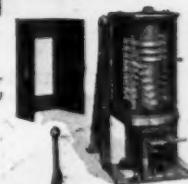
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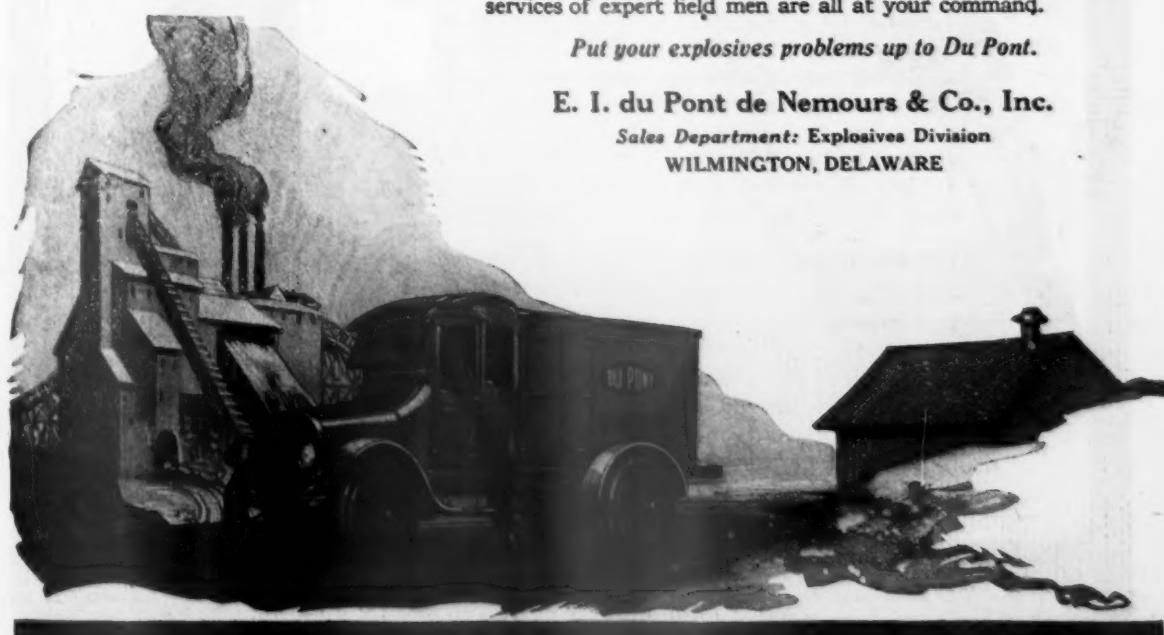
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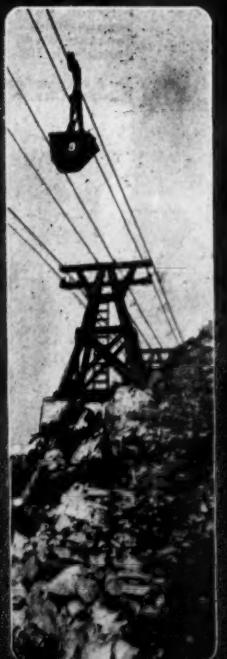
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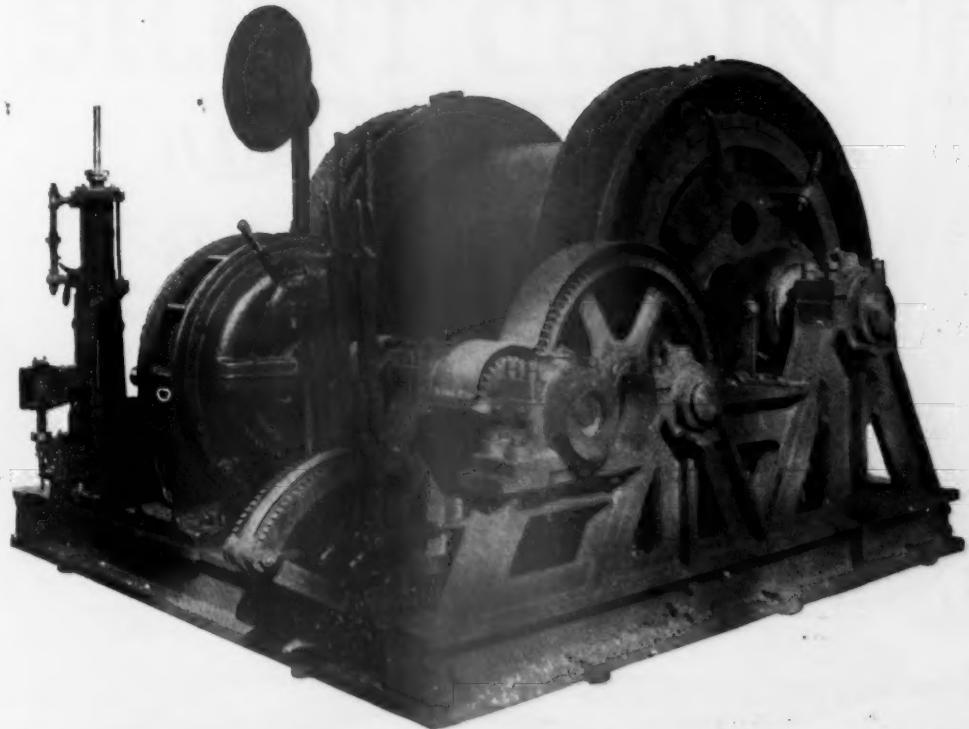
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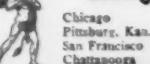
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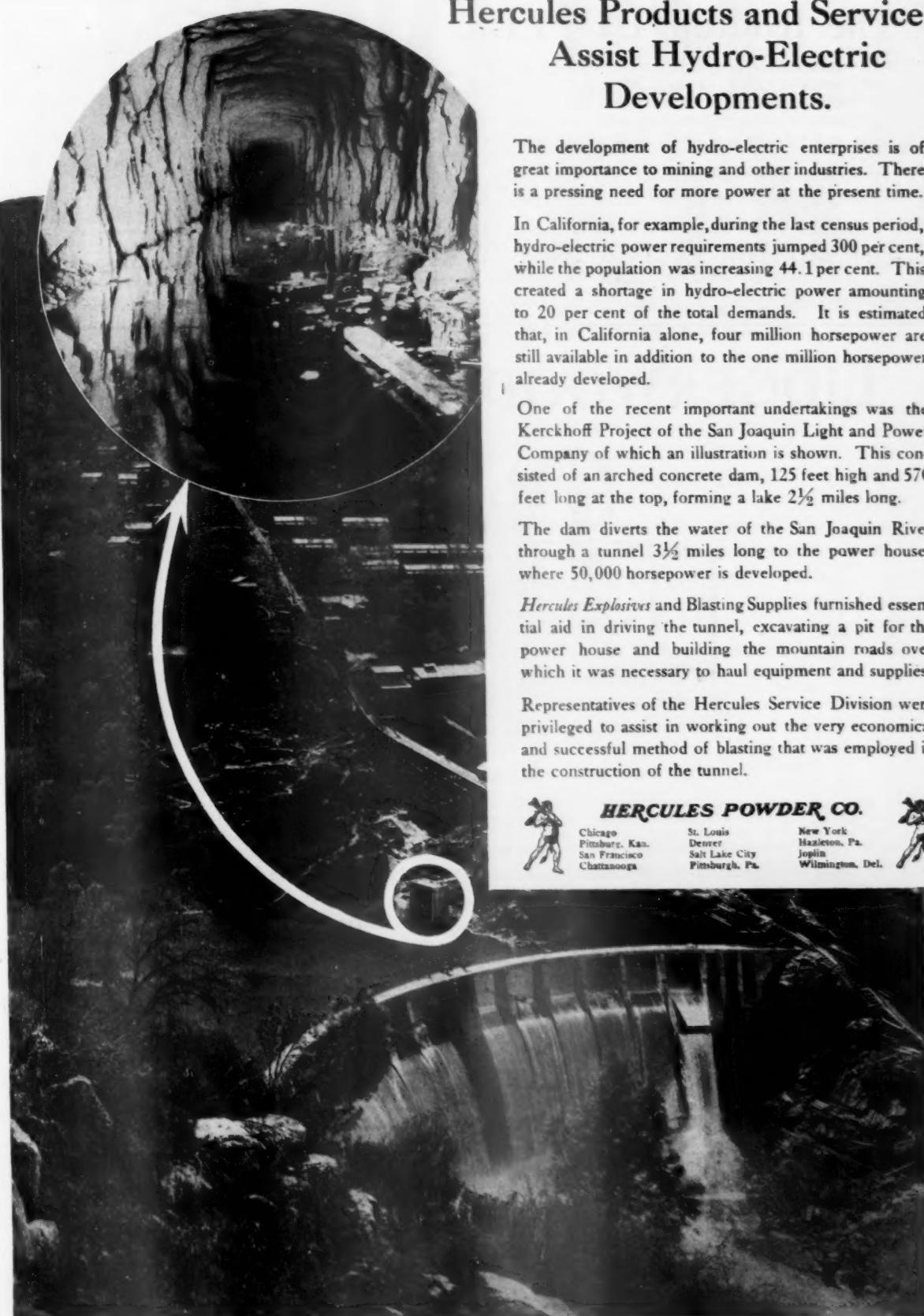
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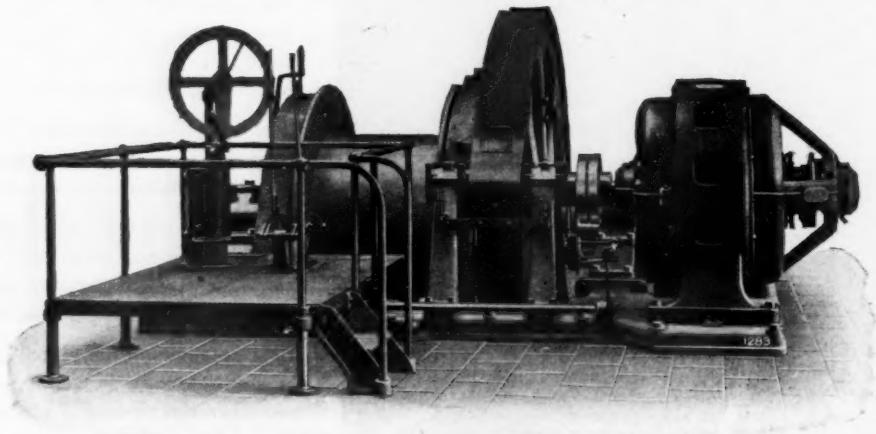
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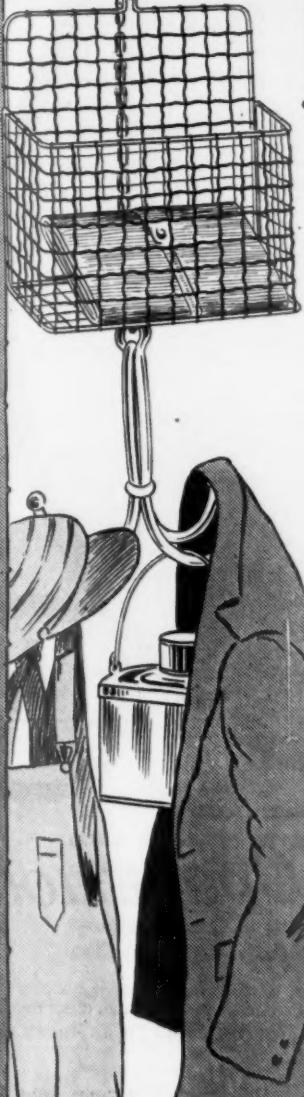
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New York Office: 19 W. Forty-fourth St. Telephone: Murray Hill 0136  
Chicago Office: 109 North Dearborn St. Telephone: Central 8744

Subscription Rate, per Year, \$3.00  
Single Copies . . . . . 30

## VOLUME 7

JULY, 1921

## NUMBER 7

## **GOLD AND FOREIGN TRADE**

## THE BULLDOG AT THE WELL

THE GOLD DOLLAR is equivalent to \$2.80 in deposit liabilities of the Federal Reserve System, and to about \$20 in terms of credit in the entire banking system of the country. The removal of \$100,000,000 in gold from the gold reserve now held in the banking system, without reducing the gold reserve ratio, would involve a contraction of credits of about \$2,000,000,000. On the same basis, a credit could be extended to Europe in the amount of \$2,000,000,000 based on \$100,000,000 of free gold in the reserve fund, without altering the present reserve ratio.

Inasmuch as considerable gold is coming into the country from Europe, thereby depleting the gold reserves of European countries, and further depreciating their purchase power by reducing their exchange, it becomes an obligation of the United States as a creditor nation to extend credit to Europe for the purpose of purchasing our raw materials, to the end that a proper trade balance may be maintained. There can be no differentiation made between one dollar in gold acquired from Europe and one dollar of gold newly acquired from the mines of the United States. It must be apparent, however, that gold produced from our mines would in no way affect adversely the purchase power of Europe, while the gold that we are now acquiring from Europe is greatly reducing Europe's purchasing power and retarding our export trade.

As a creditor nation, we must view the situation from an entirely different angle than formerly when we occupied a position as a debtor nation. We have, by reducing the gold reserves of Europe, augmented the gold reserve of the United States, but it must be regarded that we are but the custodians for the reserve, and that the prosperity of our country will depend greatly upon our protecting that reserve from excessive industrial consumption, and by utilizing the same to the best possible advantage in extending further credit to the countries with which we trade. We are, in fact, the international banker, and henceforth we will be forced to assume a broad international financial relationship. Because of this fact the United States must assume the responsibility of maintaining its normal gold production of \$100,000,000 in the interests of maintaining that position as a creditor nation. The gold production of the nation has already declined to less than half that amount, and the gold mining industry will be subjected to still greater pressure with continued losses of ore reserves unless immediate action is taken to render the industry profitable.

THE SUN NEVER SETS on British possessions, but the sons of Britain sit eternally on the lid. And they sit most particularly tight whenever and wherever there exists a possibility of the discovery or exploitation of oil.

During the last decade, while a state of confusion has been the normal state in Mexico, the world has been content to let the United States handle affairs in the rambunctious republic pretty much as it saw fit. But whenever one of the numerous insurrecto chieftains led his followers into an oil field or levied a new petroleum tax, our State Department knew in advance it would receive a protest from Great Britain. Not one crisis affecting oil was ever permitted to pass without Great Britain's reserving for future negotiation all her real or pretended rights.

In response to a Senate resolution, Secretary Hughes reported upon troubles encountered by American oil concerns in Costa Rica. The two American companies engaged there have been beset by numerous decrees, manifestoes and pronouncements, and it is truly remarkable how each obstacle placed in their way has served also as a stepping stone for some British concern.

When the League of Nations sought to distribute among the victorious powers the task of preserving the peace in small and conquered countries, and mandates went begging, Great Britain agreed magnanimously to accept responsibility for the orderly administration of Mesopotamia. It later became known that the Anglo-Persian Company held extensive petroleum concessions in Mesopotamia which had been granted before the war, and that its controlling stock was English owned. It costs considerable money to administer the Mesopotamian mandate, but Great Britain is still making the sacrifice. Dividends of the Anglo-Persian Company have advanced from six percent in 1917 to twenty percent last March.

Americans seeking admission to the Djambi oil fields were told they came too late. But no such statement was made to British investors. The far-sighted and forehanded British government had previously seen to it that they should be taken in on the ground floor.

While the Colombian treaty was being discussed, Secretary Fall announced that American oil developments stood in imminent danger of falling into the hands of British concerns. In South America, as elsewhere, the support and encouragement of the Empire was found squarely behind every British investor.

No criticism attaches to Great Britain for thus protecting the interests of her nationals. Only the highest commendation is in order. This commendation is freely accorded in the United States. But it is one of the unexplainable quirks of American psychology that those

who command all other governments for shaping their foreign policy to support the commercial ventures of their citizens abroad will condemn the American government for doing the same thing. The cardinal plank of their political and economic platform seems to be that the State Department must never do anything calculated to put a dollar in any business concern's treasury, and if, perchance, the concern to be benefited deals in oil, the greater and the more unforgivable the crime. Whenever the Colombian treaty is mentioned, whenever the State Department moves for equal opportunity for Americans, if so much as a derrick can be imagined in the dreamy distance somebody always sounds the accusatory warning, "nigger in the woodpile."

The patriotic, the common-sense course for America and Americans would be to forget for a while the mythical presence of the dark person in the fuel reserve and think earnestly about a very matter of fact reality—the bulldog at the well. In every country in the world where petroleum resources exist, in developed or undeveloped state, there you will find the British bulldog, either with his jaws clamped around a well or looking for an opportunity to take hold. In the rivalry for the world's petroleum supremacy, it is with this determined animal, and not with the fictional African, that we have to deal. The only way to take anything away from a bulldog is to take it away before he arrives. Business acumen and safety-first unite in pointing the wisdom of securing a clear title and, if possible, sequestering the property, before he has the opportunity of claiming possession. These homely principles are worth remembering, for they constitute a most excellent policy for America and Americans to pursue, especially in regard to oil.

#### INDUSTRIAL STATESMANSHIP

THE PUBLIC, the great third party to all industrial disputes, the party which ultimately bears the major part of the burden of waste caused by strikes and lockouts, still faces its old problem but with growing restiveness.

Its demand for industrial statesmanship on the part of the immediate parties, employers and employes, is becoming more insistent as the burdens of taxation and high freight rates maintain living costs, while lack of market and falling prices for output intensify the contest between profit and loss. The relation between wage levels and living costs is commanding increasing attention.

Thoughtful wage earners are beginning to realize that an unduly high wage scale is a doubtful advantage. First, because increased cost of production requires an enhanced market price, which curtails consumption and leads to curtailed employment. Second, because general high wage levels add to the cost of living, which absorbs at least eighty percent of the workman's total income. Whether fortunately for the country or not, most unfortunately for the individual workman, his earnings above living costs are usually spent for luxuries and amusements. The saving at the high wage level is so little above the possible saving at the low wage level as not to compensate for the loss of steady employment.

At this time it is said that three million five hundred thousand men in the United States are without employment. Many of these are unemployed because they refuse to work at \$1.00 per hour, demanding \$1.25 per hour or approximately \$10 per day. Upon a basis of \$5.00 per day, the waste to the nation on account of this unemployment amounts to five billion dollars annually, approximately the cost of running the national

government. This loss estimate includes only loss of wages. It does not include the loss of lives, the destruction of property, the bitterness of feeling, and the inefficiency in production resulting from industrial warfare and a lack of the spirit of co-operation and good will. These latter items, if they could be measured in money, would more than equal the direct loss in wages.

It is true that the present ratio of idleness is unusual, but upon this showing it is fair to assume that the waste occasioned by industrial disputes is sufficient to provide for the payment of the entire war debt of the country.

This burden of waste very largely falls upon the great public, upon those who are not parties to the disputes but whose interest is such as to justify a demand for the application of industrial statesmanship to the solution of this fundamental problem.

#### THE EVIL OF TAX EXEMPT SECURITIES

THE CONTINUED ISSUANCE of tax-exempt securities is a menace to the credit standing of the government, of the states, and of the political subdivisions of the states. It is rapidly tending toward property confiscation, and is materially delaying the industrial progress of the nation. This condition constitutes a national evil unparalleled in the history of the country. The creation of two classes, the wealthy, free from the burdens of taxation, and the workers, who are forced to bear the burden, of which the wealthy are relieved through the purchase of tax-exempt securities, is a violation of social justice which is crystallizing in broad public opposition and discontent as the issuance of tax-exempt securities expands. In the last few years we have seen the personal wealth of the country so rapidly segregated into the tax-free class, that whereas the taxable income of individual taxpayers under the federal income tax law was \$992,972,985 in 1916 the amount decreased to \$731,372,053 in 1917, and to \$392,247,329 in 1918. It is not to be supposed that the actual income of these taxpayers had thus decreased. On the contrary, it is a safe conclusion that they had converted their wealth into tax-free securities so rapidly that at a similar rate of conversion they would be scot-free of all income tax by 1922.

Otto H. Kahn has estimated that \$14,425,000,000 of tax-exempt securities have been issued up to January, 1921, of which about half represents the debts of states, cities, school districts and other political sub-divisions, which half represents the obligations of the government. It is estimated that more than \$1,000,000,000 of state and municipal tax-free securities were issued in 1920. If these securities are held by the wealthy, whose federal income tax is at the rate of 73 percent, the total annual loss in this one form of tax alone is over \$35,000,000, if the interest rate on these bonds averaged 5 percent. Granted that there may have been an apparent saving to the borrowers of  $\frac{1}{2}$  of 1 percent per annum, it is pointed out that this saving on \$1,000,000,000 in 5 percent bonds is only \$250,000 per year, or 0.711 percent of the annual loss in taxes. If the rates of taxation are not reduced, the loss in federal income tax alone would, for the life of this billion dollars in bonds, represent a loss of \$700,000,000, against a total saving in interest of only \$5,000,000. On a most conservative basis, the government is now losing annually from \$175,000,000 to \$200,000,000 on tax-exempt bonds already issued.

The wealthy investor receives as much net return from a 5 percent tax-exempt bond as from a taxable industrial investment paying over 17 percent. Railways, public utilities and other industrials cannot compete on this basis, and are now being deprived of the capital which

they need for expansion. This is a serious handicap to the normal progress of industry which should be terminated. The tax-exempt bond has contributed to the depression in the value of Liberty bonds, causing the holders to sustain still further losses upon liquidation. The issuance of tax-exempt securities by the government, state or other political sub-division because of the ease in obtaining funds, encourages public debt, public extravagance and public inefficiency in the expenditure of the funds so raised. Allowed to continue, the issuance of tax-exempt bonds encourages all political units issuing the same to rapidly approach their bonding limit, when the burden of taxation thus created may become so heavy as to force confiscation of the property. As the bonding power of the cities becomes exhausted, the credit becomes impaired. The credit position of the state is impaired when the credit position of any of its political sub-divisions becomes impaired, and the credit position of a state cannot become impaired without also impairing the credit position of the government. All forms of investment should be on an equitable basis of competition, and equality in the assumption of the tax burden by all people should be established. The principles of the Constitution are now being undermined, and must be restored.

#### THE COLORADO METAL MINING BOARD

**T**HREE IS SOMETHING NEW under the sun. It is the spirit which animates the metal mining operators of Colorado—a spirit which moves them to help themselves, rather than look to the government for all things, and to desire to pay taxes.

With wages, supplies and transportation prohibitively high, taxes burdensome, business gone and prospects for the future discouragingly dismal, the normal, or at least the expected, procedure would have been to call upon Congress to create a commission and make an appropriation. But the Colorado mine owners followed the accustomed practice only to the extent of asking governmental authority for their investigations. They asked the state to appoint a commission, but offered themselves to provide all the members, to do all the work and pay all the expenses. Within a few weeks the Colorado Metal Mining Board was working, without salary and in perfect disregard of the forty-four hour week, and every metal mining operator in the state was voluntarily paying a new tax.

The personnel of the board, to say nothing of the causes and objects of its creation, would indicate the successful outcome of its efforts. Its chairman is an ex-president of the American Mining Congress, its secretary is the secretary of the Colorado Chapter, its other members are members of the Mining Congress—all of them men who have given without hesitation and without limit of their time, their money and their thought to the advancement of the mining industry. The rehabilitation of the metal mining industry of Colorado, left to such men, if humanly possible, is certain of consummation.

But irrespective of the results of the Colorado experiment—and it is an experiment—the principle involved is worthy of national application. If all the reformers, upifters and remodelers of our social and industrial fabric could only be told that Congress would create no new departments, commissions or boards unless those who asked for them came prepared to do all the work and pay all the expenses, we would have very few new government agencies, but those which were established would do the work and do it promptly and efficiently.

#### CENTRALIZATION OF GOVERNMENT CONTROL

**H**UMAN NATURE is alike the world over and in all time has manifested the same tendencies. Those in control of property, place or power are always striving to strengthen their position, while those lacking any of these possessions are striving to attain them. Civilization is based upon the union of those who are intelligent enough to know that some of their natural prerogatives must be surrendered in order to secure the protection of others more important. The world's progress has resulted from the desire of each individual to advance himself and the present day world civilizations are fairly accurate measures of the mass intelligence and aggressiveness of the several peoples.

The United States has made its wonderful strides toward supremacy among world nations under the provisions of a constitution which guarantees life, liberty and the pursuit of happiness to the most humble of its citizens. Notwithstanding its present supremacy among the nations of the world, the United States Government is still an experiment. Its greatness has been predicated upon the highest possible reward to the initiative and effort of each individual, protected in certain rights by the Constitution, and with the least possible interference. Under the general plan of individualism the development of our wonderful natural resources was made possible through a co-operation which permitted large operations through aggregated capital assembled in corporate form. Just to the extent that the individual was permitted freedom of action, to that extent was progress made.

To the fact that those who gained great power through their large business operations to an extent abused their privilege can be traced the counter-movement looking to the centralization of government control. While the desire of governmental authorities to expand their power was a natural tendency at all times, the first great impetus to this grew out of the so-called "conservation movement." Theretofore the public land resources were offered as reward to the pioneer settler who left the comforts of civilized communities to face wild animals and wilder men in the reclamation and civilization of the unclaimed areas of the nation. The public lands policy upon which world greatness had been predicated was set aside and a plan adopted which anticipated a continuation of federal ownership and the development of these resources under a leasing system by which the central government would remain in control of these vast resources.

The next inroad upon constitutional liberty was the declaration that the federal government was empowered to do all those things which should be done and which the several states had not undertaken. The principle, that the federal government might do any desirable thing which the state had failed to do, was accentuated by the decision of the United States Supreme Court, that even though the central government might have exceeded its constitutional authority a failure of Congress to repudiate this act amounted to a confirmation of the central authority. For many years, it was regarded as the undoubted right of the several states to control intrastate transportation rates. The effort is now being made by the federal government to assume this power and leave the states without control of agencies created under their authority.

The next step is the declaration that coal, being a universal requirement, must necessarily be considered as a matter of interstate control, and a proposal is now under consideration to assume the management and control of the coal business. To find one man, or the few men who may constitute a commission, able to manage the business of several thousand independent operations, each

differing from all others in some particular, is surely a difficult task. These operations have heretofore had the benefit of the experiences of several thousand trained men whose lives have been devoted to an understanding of the particular problems in hand. The nation has had one experience with a super-man. Its November verdict by more than seven million majority repudiated the super-man idea in favor of the man who has declared in favor of "More business in government and less government in business."

And what are the reasons which justify an effort at this time to find a super-man who can teach each of the several thousand coal operators how to handle the individual problems of his mine? The alleged reason is that the price of coal has been exorbitant and there have been temporary scarcities of supply. If any item in the whole range of commodities has not responded to the law of supply and demand; if the price of coal has been larger proportionately than the prices of other commodities; if it can be proven that a general disposition exists among coal operators by unfair methods to extract too large a price for their product; if it can be shown that the distribution agencies over which the government has been given control by common consent have at all times so functioned as to distribute the coal; or, if it can be shown that government interference, in coal, as manifested through the Fuel Administration, did result in lower prices than would have prevailed under the competitive system, there might then be some reason for special coal legislation other than the general tendency toward centralization of power in the Federal government.

#### COAL MINERS GIVEN A CLEAN SLATE

**I**N A CONFERENCE with Washington newspaper correspondents on June 28, Secretary of Commerce Hoover said the price of bituminous coal at the mines was entirely fair. He further stated that the best method of bringing the coal situation back to normal would be for individual consumers to check up on the costs of their fuel with a view to discovering what percentage is represented in transportation and distribution, and in this manner arriving at a determination whether retail prices are fair.

In one sentence Secretary Hoover knocked the last prop from under the already tottering structure of government meddling in the private business of coal production. He, who has had more actual experience as a government official exercising control over private affairs than any other man the world ever saw, said, in effect, that the law of supply and demand had once again been vindicated and that it had done its perfect work in the coal mining industry.

There is little more to be said on the subject. All existing proposals for regulating, stabilizing or doing anything else to the coal mining industry should straightway be dropped and no additional ones should be brought forth. Consumers may justly protest if they are gouged by railroads or retailers, but the mining industry is no more responsible for what the railroads and the retailers do than the farmers are responsible for what the jobbing houses and the corner grocery stores do or than the owners of timber forests are responsible for what the building contractors or the furniture makers or the paper pulp manufacturers do.

Consumers who follow Mr. Hoover's advice and check up on cost factors which operate after the coal leaves the mines will find that in respect to them also the law of supply and demand has been as effective as it has in respect to any other commodity of common use. If permitted to operate unchecked, it will bring retail coal prices down to normal along with prices of food

and clothing and soda water and picture shows—certainly not any later, and possibly sooner. It is as universal as life, as inevitable as death, as inflexible as the law of gravitation, and every interference with it, whether labeled "regulation," "stabilization" or whatnot, whether proposed by a Senator or a Solomon or a league of nations, is foredoomed to failure and disaster.

#### THE SEASONAL RATE BILL

**O**NE OF THE GRAVE DANGERS facing the coal industry today is the possibility that deferred buying of coal, accompanied by the necessarily deferred production and distribution thereof, will create a shortage of coal during the next winter season because of the inability of the transportation systems of the country to distribute the winter's supply in the two or three months which will be available.

Assuming that the present shortage of bituminous coal production approximating 4,000,000 tons per week shall continue a few weeks longer, and that thereafter railroad labor trouble shall prevent for several weeks any large distribution of coal and other general commodities, the piled-up tonnage in all lines will be so great as to make its prompt distribution impossible under the present demoralized condition of our transportation systems. If this condition shall prevail, and it is not a remote possibility, it will create an opportunity for speculators to profiteer as was done last year, and the public will be obliged to suffer, either by reason of outrageously high prices for what is available or, what will be still worse, by not being able to obtain at any price a proper supply. Should there be a recurrence of these conditions, the public conscience will blindly revolt against an industry which is unable to function in such a way as to meet the public necessity. Under such circumstances it will be difficult indeed to prevent the enactment by Congress of legislation putting coal absolutely under public control. Already the decision of the Supreme Court of Kansas has declared coal to be charged with a public use. This principle, if enacted into law, will be approved by the courts, and the passage of regulatory law relating to the coal industry will be demanded with such power as to make difficult the defeat of such legislation.

If the public would now purchase its coal, when the mines are idle and the transportation systems are able to deliver, this condition could be avoided. Any line of reasoning which justifies the consumer in hoping for a cheaper price at a later day is a serious danger to the coal industry at this time. It seems certain that the pending seasonable rate bill would not under present conditions serve the purposes for which it is intended. The consumer will not buy coal because of a 50 cents per ton reduction in freight rates during the summer months unless he is assured that the price of coal plus the higher freight rate next winter when he needs the coal will be less than the present price plus the diminished freight rate. In other words, unless the coal industry is in position to stabilize the price of coal and guarantee that the present price is enough less than the price at which coal will certainly be held next winter to justify the purchase of coal in advance of need, the interest upon the money invested, the cost of storage, the waste and deterioration occasioned by the storage—unless the price of coal next winter is guaranteed to be more than enough to cover all these items, then the seasonal rate bill will not be effective.

Until the requirements of the Sherman Law are so modified as to permit the coal industry to control itself, and to definitely decide that coal will be sold at not less than the costs of production, which can be immediately determined, the seasonal rate bill will be of no avail in helping the situation.

### A DEPARTMENT OF MINES

**A** GREAT MANY REASONS may be assigned in favor of, but none can be advanced against, the creation of a Department of Mines to be presided over by a member of the cabinet, the Secretary of Mines, as contemplated in the bill introduced by Senator Samuel D. Nicholson, of Colorado. Among all the measures providing for reorganization and regrouping of government activities, this one stands out as pre-eminently proper and the most timely.

The miners, speaking through their national chamber of commerce known as the American Mining Congress, went on record a decade ago in favor of the establishment of a Department of Mines. During most of the period which has since elapsed they, in common with other business men, devoted their energies to the winning of the war and to reconstruction, allowing their own recommendation to remain in abeyance, but they have never receded from their position. Their recommendation stands today with every reason of economy and efficiency to back it up and with a much larger number of constructive business men behind it than at the time it was first made.

Mining is one of the two great basic industries of the country and decidedly the bigger of the two. It furnishes two-thirds of all railroad tonnage, without which the transportation of the other third would be impossible. Its manufactured products alone pay nearly one-third of all the corporation taxes collected by the government, or seventy-five times as much as incorporated manufacturers of agricultural products. Forty states depend upon it in more or less degree for employment for sizable portions of their population and all states look to it to contribute a hundred thousand times more permanent wealth than all other industries combined. No wisdom can be seen in cluttering up the administration of this, the country's greatest industry, any longer with the administration of hospitals, institutions for the deaf, public buildings and playgrounds in the capital, Indian disputes and governmental affairs in distant Hawaii.

The Interior Department will not suffer either in prestige or in the amount and importance of its work through the loss of its mining bureaus. With the retention of its other existing bureaus and the addition of a score or two-score of independent bodies which by all odds ought to be made directly accountable to one of the executive departments, it will probably expand its influence and its usefulness. The mining industry will appreciate and make the best use of the richly deserved recognition and assistance which the establishment of a Department of Mines will afford, but the country as a whole will be the greatest gainer, for it is only when the mines are prosperous that the nation is prosperous.

Senator Nicholson is to be congratulated. The miners are with him to a man.

### RAILROADS AND ECONOMIC LAW

**J**ULIUS KRUTTSCHNITT, chairman of the board of directors of the Southern Pacific Company, told the Senate Interstate Commerce Committee that the railroads had for years been trying to make Congress and other regulating bodies understand that railroads were subject to the same inflexible economic laws to which all industries are subject.

That is just exactly what the country is trying to tell the railroads now. The greatest of all economic laws is the law of supply and demand. If a merchant with a surplus stock sees his trade growing smaller, he stimulates demand by reducing prices. Railroads are busi-

ness concerns dealing in one commodity, transportation, and their supply of this commodity, as measured by their ability to furnish it, is at the present time much greater than the demand. Infelxible economic law decrees that the railroads must create a demand for their surplus product by cutting freight rates on the necessities of life to a point which the traffic can bear.

There is a maxim of equity as ancient and as honorable as any economic law which the railroads would do well to remember, namely, "He who comes into court must come with clean hands." The railroads have asked for a reduction in wages, but they object strenuously to any suggestion of a reduction in freight rates, notwithstanding the Railroad Labor Board is now preparing to grant their own request. The railroads should practice what they preach. Let them request the Labor Board to reduce all railroad wages to the levels which prevailed prior to the last big boost, and announce at the same time that the last general increase in freight rates will be rescinded on the day the wage reductions go into effect. Then they will have a good case, for they will have on their side not only "infelxible economic law," but also public sentiment, which is both judge and jury.

### ABOUT OUR GOVERNMENT

**T**HE UNANIMITY of belief held by thousands of patriotic citizens indicates that if each might have the opportunity to reconstruct our industrial machinery, an ideal condition would be created by which the highest gratification might be brought to each individual and justice automatically prevail. Unfortunately, however, the holder of each of these myriad beliefs proposes that the ideas of all others shall conform to his own rules. As a matter of fact, no two of them could agree upon the essential details. The glory of the American government lies in the fact that it is the means through which the majority may express itself, not upon the definite details, but upon the broad principles involved.

Every organization, as its functions are enlarged and newer agencies created, loses to some extent the efficiency maintained when every detail could be under the direction of one capable executive. Notwithstanding this minor loss of efficiency the great problems of the world have been worked out most effectively by coordinated effort. It is not that the person who inspects the dial of a watch finds that occupation more interesting than would be his work if he had to do with every part in the construction, but it is because a thousand individuals each working on separate parts, uninteresting and monotonous as each of these operations may become, are able to produce several times as many watches as could be done if each undertook to master and execute every detail of watch construction. So it is with reference to our national government. Each individual is called upon to do a certain part, to limit his natural liberties in certain directions, and to adjust himself to that body politic called government to which he owes allegiance and from which he is entitled to protection in "life, liberty and the pursuit of happiness."

For some years past much criticism has been leveled at our national government because of inefficiency and waste; and in the more recent years because of wanton waste and extravagance. No organization without absolutely autocratic power over its membership can so conduct its affairs as not to justify criticism of this kind. The ambition of individuals, the initiative which has made this country the greatest in the world, cannot always keep itself within proper limitations. This is particularly true in our government, where each public servant is tempted to undertake things which ought to

be done and which he does not appreciate are more properly within the province of some other governmental agency. Thus duplications of service have developed which, being of public concern, have provoked much more extended criticism than would have resulted from equal waste in the management of a private business enterprise. Each of the many reformers who charges himself with the important responsibility of reconstructing our governmental affairs has a little different view of the remedy, although all agree upon the abuses. In the end we shall all be forced to accept the conclusions reached by Congress after a careful consideration of all of the facts involved and, whether right or wrong in its conclusions, the law which that body is authorized to enact will be respected by the American people.

#### AMERICAN CAPITAL ABROAD

**I**T IS STATED authoritatively that investments of English capital in Argentina furnish an annual interest return which more than offsets the immense purchases of foodstuffs and other raw materials by British citizens in the Argentine republic. All the profits derived by English firms through the sale of manufactured articles in the Argentine market constitute pure velvet.

Like returns would accrue to American capital invested in sufficient quantity overseas. Advantages of such investments are two-fold. First, they create an assured outlet for American manufactures; second, they produce interest payments which form an effective invisible balance of trade in our favor.

American investments abroad have been made heretofore mainly when necessary to assure a supply of needed raw materials to American factories. Advantageous connections of this character are matters of ordinary occurrence now, notably in the case of certain minerals in South America and oil in every part of the world where freedom from discriminatory treatment is assured. But in most other lines we will have no further need of the world's goods, either raw material or manufactures, until Europe regains its buying power and its ability to absorb our surplus farm and factory output. And that Europe can never do until it is assisted to its feet and propped up with good American money. The soundness of this statement was demonstrated within the last few weeks when President Harding called upon the country's strongest financiers to aid in solving the problem of transferring American gold to impoverished Europe.

No more profitable way of speeding the transfer can be suggested than by sending over part of the money for permanent investment. Irrespective of the work of the new federal financing corporation, and of the result of negotiations for foreign loans to be expended in this country, investments of this character should be made in sufficient volume to serve as essential factors in the further development of outlets for American merchandise. Coal exports last year amounted to a third of a billion dollars and were surpassed in value only by cotton and wheat. Copper ranked twelfth in value among all exports. The mining industry would be one of the first to benefit from wholesale enlargement of American investments abroad.

#### MINING CONGRESS MEMBER HEADS PUEBLO RELIEF COMMITTEE

William V. Hodges, a member of the American Mining Congress, was appointed chairman of the committee from the Denver Civic and Commercial Association to raise funds for the relief of Pueblo and adjacent flood stricken territory.

#### ANNOUNCEMENT

**A**NNOUNCEMENT is made of the association with the American Mining Congress, Tax Division, of Lieut. McKinley Kriegh, formerly a practicing attorney of Springfield, Missouri, during the war in charge of the map distribution section of General Pershing's headquarters of the A. E. F. in France, and more recently in practice before the Internal Revenue Department. Robt. G. Wilson, chief of the Tax Division, resigned effective July 1.

Mr. Kriegh is well equipped for the services required, and will be able to render substantial service in a general super-advisory capacity to the members of the Mining Congress who have difficulty in straightening out their tax affairs. The Mining Congress, through Mr. Kriegh, will hope to continue its very sympathetic relations with the Subdivision of Natural Resources of the Internal Revenue Bureau, and to carry out the purposes of the Mining Congress to act as general adviser in protecting the interests of the public and the taxpayer, by the accomplishment of just settlements in all federal income tax matters.

#### BRISK DEMAND FOR EXPOSITION SPACE

**T**HE NATIONAL EXPOSITION of Mines and Mining Equipment to be held in conjunction with the twenty-fourth annual convention of the American Mining Congress at the Coliseum in Chicago, October 17-22, is attracting national attention among the large manufacturers of mining equipment machinery.

There has been an unusual demand for exhibit space on the part of the manufacturing concerns, in fact, during the period of one week following the first announcement relative to the contract forms and rules and regulations governing exhibits, contracts for twenty-five exhibit spaces were closed, and among the representative firms securing exhibit space were the Westinghouse Electric and Manufacturing Company, the Jeffrey Company, the Lincoln Steel and Forge Company, the Southern Wheel Company, the Lima Locomotive Works, the Ohio Brass Company, the James H. Channon Manufacturing Company and a number of other equally representative concerns.

In spite of the size of the Coliseum and the annex, the management of the convention and exposition are beginning to feel that they will be crowded to take proper care of those desiring exhibit space.

Among the important public exhibits will be a special exhibit of the Bureau of Mines, illustrating oil shale development in the west, and special exhibits from the Geological Survey and Bureau of Standards, furnishing material relative to the work of the government bureaus.

One of the features of this exposition will be a splendid exhibit of the mineral resources and opportunities for the development of mining enterprises in the territory of Alaska. Mexico will be represented by a fine government exhibit, illustrating the remarkable mineral resources of that country and presenting scenic features which will be one of the really attractive sections of the exposition. In addition, tentative arrangement has been made for state exhibits from California, Wyoming, Arizona, and a number of the other western mining states.

**OIL STANDARDIZATION MEETING.**—The Technical Committee on Standardization of Petroleum Specifications will hold an open meeting at the Bureau of Mines, Washington, June 12, to consider suggested modifications of Bulletin 5, governing government purchases of oils.

## THE BUREAU OF INTERNAL REVENUE GOES INTO HIGH SPEED

WHEN DAVID H. BLAIR assumed the office of Commissioner of Internal Revenue, he announced that he hoped to bring the work of the bureau up to date and to keep it there. And when a few days later he selected Edward H. Batson as Deputy Commissioner in charge of the Income Tax Unit, tax experts in Washington agreed he had made considerable progress in that direction.

In the selfsame inaugural interview the Commissioner expressed the view that "it is important to all that pending differences, both as to income taxes and estate taxes, be speedily and finally determined. I hope for great results in these particulars."

Mining operators with claims for depletion and amortization, or possibly for refunds, and others whose ideas as to the amount of income or excess profits taxes they should pay, or the amount of the refund to which they were entitled, differed from those maintained by the revenue department, agreed with him heartily that all pending differences should be settled, and settled speedily and finally. And they may take comfort from the fact that Mr. Batson, as disclosed in an interview with the *MINING CONGRESS JOURNAL*, agrees with them and with the Commissioner, and that his chief ambition, expressed in so many words, is to bring about a speedy and prompt settlement of these pending differences.

Not only does the new Deputy Commissioner desire to settle pending differences, but he hopes, and expects, to bring about a general speeding up of the business of assessing and collecting federal income and excess profits taxes all along the line. That he is capable of tightening up the gears and throwing the department into high speed will be admitted by all who know anything about the man and his official accomplishments. Speed and accuracy are seen in his every move, individually, and in his career as a whole—otherwise, how could he himself have traveled so far in such a short space of time?

For it is known that the man who hereafter will be directly responsible for collecting ninety percent of all the receipts of the biggest government in the world is only thirty-two years of age, one of the youngest men on record to attain to such a responsible and exacting position. All his life he has done things with the "speed" and "finality" which he and the Commissioner and the taxpayers agree should mark all revenue department operations. Born in Caldwell County, Missouri, he graduated from high school in 1907, studied law in Kansas City for the next three years and was admitted to the bar when he was twenty-one years old, which is early enough. For eight years he practiced law in Kansas City, specializing during the last three and a half on railroad litigation. He entered the government service, February 19, 1918, as claims examiner and was

assigned to the claims division of the income tax unit; was promoted to the position of claims reviewer a month later, and in October of the same year was made executive assistant. On April 8, 1920, he was made head of the staff division of the Income Tax Unit, and on November 1 was made assistant head of the unit, and on March 1 of this year became acting Deputy Commissioner of Internal Revenue in charge of the Income Tax Unit. It was only natural that he should be selected as Deputy Commissioner, which he was, and all of which is strictly in keeping with the aforementioned attributes of "speed" and "finality" which are manifest in everything he does.

If his individual history can be taken as a criterion, the troubled taxpayer may reasonably feel encouraged that his tax problems will be settled promptly and properly. Nothing said by the Commissioner or the Deputy Commissioner, and nothing written in this article, should be construed as a reflection upon the accomplishments of the Bureau of Internal Revenue during the last few years. The former Commissioner and the former Deputy Commissioner and the former chiefs of the Natural Resources Subdivision did the best they could with the men and the money at their command. Commissioner Blair himself said it was a great tribute to his predecessors that they had accomplished with so little friction the gigantic task of collecting five or six billion dollars a year, especially since the task was thrust upon them suddenly, when they had no precedents to guide them and were without any machinery except that which they built up as they went along. To this tribute the taxpaying public will unreservedly subscribe.

Scores of reasons for the delay in effecting tax settlements could be advanced, but they may all be summed up accurately in these two, namely, lack of sufficient personnel in the bureau and failure of taxpayers to co-operate. Some taxpayers may resent the statement that they have not co-operated, but upon reflection

they will see that they did fail to co-operate, although they were willing, even anxious, to do so. But whether attributable to indifference, inability or inadvertence, every lack of co-operation on the part of the taxpayers brought about a delay in the process of effecting "speedy" and "final" tax settlements for which the revenue bureau was in no way responsible. This point will be discussed more fully a little later in this article.

Perhaps the chief cause of dissatisfaction on the part of taxpayers has been the impossibility of effecting speedy and final disposition of claims for refund and abatement. Many taxpayers have come to believe that the revenue bureau gives all its attention to collecting money, and cares not at all whether claims for refund from the government are ever disposed of. This is what Mr. Batson had to say to the *MINING CONGRESS JOURNAL* for their encouragement:



EDWARD H. BATSON  
Deputy Commissioner of Internal Revenue in charge of Income Tax Unit.

"It is my principal ambition to bring about a prompt settlement of the claims for refund and abatement which have been filed in thousands of cases and which have not been adjusted as promptly as the taxpayers and the bureau desire. We are working on a reorganization plan whereby claims may be brought up for consideration immediately upon their receipt. I have issued instructions to all of my men that I do not care whether an additional tax of five cents is levied in any given time, if it can be shown to me that the auditors' time has been engaged in the adjudication of claims.

"Often it is charged that the government is more interested in collecting additional tax than in making refunds to taxpayers. This is not true, but the delay which has been caused in handling claims in the last few years has been largely due to the safeguards which the government has found necessary to throw about the claims problem to the end that excessive or duplicate payments may not be made."

In the adjustment of claims, it is necessary to observe many details required by the disbursing departments which do not apply to cases where additional tax is involved. Furthermore, the law prohibits the government from refunding money so long as the taxpayer is indebted to the government in any sum, making it necessary to check and audit the same taxpayer's records for several years before a refund for any given year can be released. For example, the recent community property decisions are bringing into the bureau thousands and thousands of claims which will require the auditing of the returns of husbands and wives from 1916 to the present date.

It will be good news to all who have claims pending to know that for the first time in the last four years, the Income Tax Unit is now adjusting as many claims as are being received, and that ninety percent of all pending claims have been assembled and assigned and are in various stages of adjustment. It is hoped that with the aid of additional space, personnel and equipment it will be possible in a few months to have all claims under active consideration.

The situation with respect to the auditing of returns is more favorable at this time than at any time since the organization of the unit, the unadjusted cases being largely made up from the intricate, complex cases, principally those involving large companies with numerous subsidiaries. The reason for this situation is largely attributable to the fact that the unit is unable to retain in sufficient numbers men of sufficient calibre and ability to adjust these complex cases. The salaries which the unit is allowed to pay are not sufficient to retain its most capable men, who are naturally unwilling to remain indefinitely in the service for a salary which is in most instances less than fifty percent of those which they might obtain in the commercial world.

Three hundred dollars a month is a princely salary as salaries run in the revenue bureau, although many of the auditors and assessors there match their wits with financial and engineering experts whose yearly honoraria equal those of a Senator and a Congressman combined and a cabinet officer thrown in for good measure.

For collecting the government's money and preserving the bureau's morale, Mr. Batson draws down five thousand dollars every twelve months.

Quite recently one hundred and fifty subordinate employees were promoted to the places just given up by men who accepted remunerative offers from the outside commercial world. The government literally conducts a night school for its revenue employees, and it is necessary to do so if the bureau is to continue in operation.

Inadequate appropriations not only make it impossible to keep a permanent force in Washington, but also force the bureau to run along with only nineteen hundred men in its field force. Shortage of field forces causes many difficult cases to drag along almost indefinitely which could be settled promptly if investigations could only be made. And right in this connection it should be noted that numerous observers believe the government could make a clean, round billion dollars net by tripling this field force. Taxpayers will come, or send, to Washington, if their assessments are too high, but they will not trouble themselves if assessments are too low. Facts and figures warranting the collection of additional taxes are nearly always discovered in the field. A sufficient field force, it has been estimated, could collect one billion dollars which the government otherwise will never receive, and the aggregate of salaries and expenses for thirty-eight hundred new field men would be only seven or ten or fifteen million dollars! There is very little prospect that this appropriation will be made, but hopes run high that something will be done in this direction and that a great deal will be done toward increasing the personnel in Washington.

Many complaints received from taxpayers are traced back to the taxpayer's own delay. For instance, many taxpayers upon receiving notice of additional assessments fail utterly to register their objections until the assessments have been forwarded to the collectors and demand for payment has been made. Then—and there are thousands of such cases—a

delay ensues for which the taxpayer alone is responsible. When a taxpayer waits this long to make objection he is informed that under the law he must submit a claim for abatement covering the disputed items, which items might have been eliminated earlier had the taxpayer immediately upon receiving notice of the assessment intimated to the department the existence of facts which warranted a change in the assessment.

"Assessments are never made till thirty days after the taxpayer has been notified of the department's intention to assess," Mr. Batson said. "The taxpayer is at liberty at any time within this thirty days to submit any competent evidence which will eliminate any erroneous portion of the tax. If, however, he fails to exercise this privilege and the tax is formally assessed, then it becomes necessary for him to submit his contentions in the form of abatement claims and file with the collector. These claims are then forwarded to Washington for consideration upon their merits, and if it is found that the tax has been erroneously assessed the collectors are authorized to remove the charge."



ALBERT H. FAY  
Chief of the Subdivision of Natural Resources, Income Tax Unit

"Much of the delay in connection with the closing of cases is due to the fact that the taxpayer, after having his books examined by the revenue agent and after having been notified that the recommendation is to be made for the assessment of additional tax, makes no effort to mobilize his evidence so that it may be presented to the bureau at Washington immediately upon receipt of the assessment letter."

If the excess profits tax is renewed for the calendar year 1921, the bureau expects to have the audit of priority returns in fairly correct condition by the end of the fiscal year, June 30, 1922.

With respect to natural resources cases, arrangements are being made to notify each taxpayer of the valuation placed upon his property before the case is referred to the audit section. This will afford the taxpayer engaged in the mining industry an opportunity to have his valuation settled before the case is finally closed. It is thought that such procedure will be more acceptable to the taxpayer, since the principal difficulty in these cases is that of determining correct valuation.

Men in full sympathy with the determination of Mr. Blair and Mr. Batson to put speed and finality into the revenue bureau have been chosen as responsible heads of departments, and in no instance is this statement exemplified more strongly than in the selection of Mr. Batson's assistant and in the choice of a new head for the Natural Resources subdivision. E. W. Chatterton has been made assistant deputy commissioner and Albert H. Fay chief of the Natural Resources Subdivision.

Mr. Chatterton entered the government service May 21, 1897, as a page in the office of the fourth assistant postmaster general. He was made secretary to the chief post-office inspector in 1902. On April 1, 1912, he was appointed chief clerk and assistant to the general superintendent of the railway mail service, serving as executive officer and also as personnel officer. He was commissioned a captain in the reserve corps on January 5, 1917, and on April 30 was ordered to active duty. Shortly before his return to America in April, 1919, he was promoted to the rank of major. He was appointed assistant head of the administrative division of the Income Tax Unit in August, 1919, and on February 5, 1920, was made assistant head of the field audit section. From this position he was promoted to the post of assistant to the Deputy Commissioner.

In dealing with Mr. Fay the mining industry will be dealing with a man of long mining experience and with a full understanding of the difficulties of operators. Mr. Fay graduated from the Missouri School of Mines in 1902, and received his A.M. degree from Columbia in 1907, where he specialized in post-graduate studies in geology, mineralogy and ore dressing. Later as assistant to the late Dr. R. W. Raymond, then secretary of the

American Institute of Mining Engineers, he received valuable editorial training. Before entering college he worked in the commercial department of Arizona copper mines, and after he became a mining engineer he did important work and gained much experience in Mexico and Alaska. He has traveled across Alaska fifteen hundred miles by dog-sled, and in the spring of 1914, as a representative of the United States Bureau of Mines, supervised the shipment of the first cargo of coal from the Matanuska field. He has worked in barite mining and barium chloride manufacturing in Tennessee and was on the staff of the *Engineering and Mining Journal*. From 1911 to 1920, while with the U. S. Bureau of Mines, he compiled and edited thirty-five technical papers and became the author of Bulletin 35, "A Glossary of the Mining and Mineral Industry," which contains thirty thousand definitions for more than twenty thousand terms. Mr. Fay comes from New England ancestry dating back to the early colonial days, and his own native state is Missouri. He entered the National Resources Subdivision June 28, 1920, as valuation engineer, oil and gas section. He was appointed acting chief of the subdivision on the tenth of last month, and becomes chief July 1, when the resignation of C. F. Powell goes into effect.

Of such experience and character and determination are the men who direct the Internal Revenue Bureau as a whole and that particular part of it with which the mining industry comes in contact. As to the men directly under Mr. Fay in the Natural Resources Subdivision, Mr. Fay himself says of them:

"It is the aim of every engineer and auditor to treat the taxpayer as though he were a human being."

The Internal Revenue Bureau has stepped on the gas and opened the throttle. With competency and consideration on the part of the bureau, and co-operation on

the part of the taxpayer, every indication points to a safe arrival at their mutual destination, namely, the just settlement of income and excess profits cases with "speed" and "finality."

#### NATIONAL TAX ASSOCIATION TO MEET AT BRETON WOODS

NOTICE has been received by the Tax Division of the American Mining Congress that the fourteenth annual conference of the National Tax Association will be held at Bretton Woods, New Hampshire, September 12-16. It is planned to hold sessions only twice daily, so that those participating may have ample leisure to enjoy the air and scenery of the White Mountains. The invitation was extended by Governor Brown and the New Hampshire Tax Commission.





RESCUE TEAM SAVING THE LIFE OF A COMRADE

Team is equipped with the most modern scientific apparatus such as will be worn by contestants at St. Louis

## MINE SAFETY TEAMS PREPARING FOR INTERNATIONAL CONTESTS

THE SIXTH ANNUAL International First Aid and Mine Rescue meet will be held in the Coliseum at St. Louis on September 1, 2 and 3, under auspices of the United States Bureau of Mines, in co-operation with the National Safety Council, the American Red Cross, United Mine Workers, the coal operators' associations and St. Louis civic organizations.

Team entry blanks have been forwarded to all of the mining companies in the United States and a number which are operating in Mexico and Canada. Acknowledgments already received by the Bureau of Mines indicate that virtually every mining district in the United States will be represented by one or more teams. Eighty-five teams were entered in the annual meeting held last year in Denver and it is expected that this number will be increased to 100 at this year's meeting. Entries will close on August 17 at the Pittsburgh station of the Bureau of Mines.

Official invitations have also been extended by the State Department on behalf of the Department of the Interior to the governments of Great Britain, France, Belgium and the Dominion of Canada to be represented by one or more officials in a series of conferences on the possibilities of standardizing the use of mine rescue breathing apparatus. These conferences, it is expected, will occupy a prominent place in the events of the meeting.

Exhibits of apparatus and accessories for use in mine rescue and recovery work will be made by various manufacturers and their agents and the Bureau of Mines will also display some of the devices which have been developed in the Bureau laboratories for use in mine rescue work.

Another feature of the meet will be the formal presentation of gold medals to miners for deeds of bravery in saving life in the United States during the past year. The awards will be made by H. Foster Bain, Director of the Bureau of Mines, in behalf of the Joseph A. Holmes Safety Association of which he is also president. This association was formed in 1916 to perpetuate the work and memory of Dr. Joseph A. Holmes, the first director of the Bureau of Mines, whose life was devoted to obtaining better mining conditions and more friendly and co-operative relations between the operators and miners. Heroes of four mine disasters, or their survivors, have been selected to receive the gold medal and diploma of honor for saving, or dying while trying to save, the lives of their fellow workers.

A gallery is being erected in the Coliseum for use in the mine rescue contests. Under conditions approximating as closely as possible those found in mines following an explosion or fire, mine rescue teams, wearing oxygen breathing apparatus, will enter the gallery and rescue a miner who has been, supposedly, entombed

following the explosion. Each team will be composed of five men, one of whom shall act as captain. Each man will be provided with an oxygen breathing apparatus and such lamp as is used by rescue crews in coal or metal mines and each crew will carry a canary bird or other recognized carbon monoxide detector. Judges will rigidly examine the apparatus of each crew and discount for any improper adjustments or connections. These judges will also examine the members of the crew as to their knowledge of the proper operation, testing and construction of the apparatus.

Following this examination, a mine rescue problem will be assigned to each team. Among the practice mine rescue problems of the Bureau of Mines, some of which will be used at the St. Louis meeting, are the following:

(1) A quantity of dynamite accidentally set on fire, and burned 100 feet from face of tunnel; two men are working at the face of the tunnel and have erected a barricade for their protection; men are able to walk; crew will enter and rescue the two men.

(2) Carbon dioxide gas (black damp) has suddenly appeared; a miner at the working face is overcome; lights on the gangway have been extinguished; crew will enter and bring miner to the surface.

(3) Following a mine fire, the crew finds a stopping across the entry; tear hole in stopping and rescue miner who is found unable to walk.

First aid teams will be composed of six men, including a captain and a patient. Each team will be given an equal number of first aid problems upon which they will



BUTTE (MONTANA) FIRST AID TEAM IN ACTION

In which the boys from the copper mines are seen taking a prize for life-saving methods in an American championship meet

be judged for various defects in their work, failure to do the important thing first, awkward handling of the patient and other improper forms of treatment.

Prizes of cups, medals and banners, together with other trophies, will be awarded the winning teams. Tentative plans have been made to announce the winners and award the prizes at a banquet on the evening of September 3 as the closing event of the meeting.

Although the contests will be held under auspices of the Bureau of Mines, expenses of the meeting will be met from a sum of \$4,000 which has been pledged by

L. G. Lumaghi, president of the 5th and 9th districts of the Illinois Coal Operators Associations.

Mr. Lumaghi has been named general chairman of the executive committee in charge of arrangements for the meeting, with J. J. Rutledge, superintendent of the Central experiment station of the Bureau of Mines, Urbana, Ill., as vice-chairman; Carl Smith, manager of the Safety First Council, St. Louis, as secretary, and W. K. Kavanaugh, president of the Southern Coke and Coal Co., as chairman of the program arrangements committee with W. G. Jenkins, Philip J. Stremmel and Clarence Howard serving as members of his committee.

Other members of the executive committee are Charles F. Hatfield, secretary and general-manager of the St. Louis



DANGERS OF BURNING MINE SIMULATED

Competing teams will go into the smoke and deadly gas and bring a stricken workman out into the open air

Convention, Publicity and Tourist Bureau; P. H. Byrns, St. Louis chapter of the American Red Cross; Eugene McAuliffe, president of the Union Colliery Co.; Francis E. Turin, Dr. Royd R. Sayers, chief surgeon of the Bureau of Mines; Girard C. Warnum, manager of the St. Louis Safety Supply Co.; D. J. Parker, mine safety engineer of the Bureau of Mines; Walter Nesbit, secretary-treasurer of the United Mine Workers, District No. 12; C. A. Herbert, district mining engineer of the Bureau of Mines; George Heppel, secretary-treasurer of the United Mine Workers, District No. 25; W. D. Ryan, safety commissioner of the Bureau of Mines; W. S. Bedal, chairman of the American Legion city executive committee of St. Louis; Walter M. Smith; Paul V. Dunn, general secretary of the St. Louis Chamber of Commerce; Bert Barnett, Dr. R. Vitt and F. J. Bailey, assistant to the director of the Bureau of Mines.

A number of local contests have already been held in various mining states and communities and these will be continued in other districts, the winning crews to be sent to the St. Louis meet to compete with the winning teams from other localities.

The miners' occupation being continuously filled with hazard, the rescue and first-aid teams at the mines are looked up to as the leaders in a great cause and there is much local and regional pride in the proficiency of their men. In sending crews to the International meet, the mining companies are not guided entirely by the hopes of winning prizes for efficiency, but feel that the men sent will bring back with them a larger experience in mine rescue work obtained from their contact with the chosen crews from other mining districts.

#### COKE-OVEN ACCIDENTS IN 1920

**I**N ALL coke ovens operated in the United States in 1920, there were forty-nine fatalities and 3,415 cases of injury, according to Bureau of Mines reports. This was a reduction of four fatalities and 616 injuries as compared with the record of the year preceding. There were employed 28,139 persons, each employee averaging 319 working days.

At by-product ovens, where there were employed 17,184 men, or 1,176 more than in 1919, the number of killed was thirty-eight and the number injured was 2,380. The fatality rate was 1.92 and the injury rate 120.04 per thousand of employees as compared with 2.55 and 158.33, respectively, in 1919. These averages are equated to a basis of 300 working days.

Beehive coke ovens employed 10,955, or 2,378 less than during the year preceding. There were eleven fatal and 1,035 lesser accidents. The rate was 1.09 killed and 102.54 injured per thousand employees as compared with .92 killed and 125.96 injured during the preceding twelve months. Employees of beehive ovens averaged 276 working days.

#### WHY ACCIDENT STATISTICS ARE NEARLY ALWAYS LATE

Questionnaires were sent by registered mail early last month to less than one hundred metal mines and quarries, metallurgical plants and coke ovens which have not yet reported to the Bureau of Mines the number of men employed and the number killed and injured last year. Until these questionnaires are filled out it will be impossible for the bureau to compile and make public its annual accident statistics.

The questionnaires are always mailed promptly about December 31 to all the metal mines and quarries, metal-

urgical plants and coke ovens in the United States—between fifteen and twenty thousand in number. A majority of all plants make prompt return. Upon the expiration of a month, a second questionnaire is sent to those who have not filled out the first one. A third set of questions is mailed out in April and a fourth in March, and in June registered letters are sent to the few who are still delinquent.

The delay of the few in sending in reports is responsible for the lateness which marks the issuance of statistics by the Bureau of Mines. As a rule, these statistics are not issued until twelve or fourteen months after the expiration of the year. If reports came in promptly, the bureau could make full announcement within ninety days after the close of the year.

The suggestion has been made that the bureau issue partial returns from time to time. This suggestion cannot be followed because statistics of accidents and fatalities are issued for each state. While one plant, even a fairly large one, might have little effect on statistics for the nation, its accidents and fatalities have a very perceptible effect on the figures for the state in which it is located. And since the statistics for the nation must include those for all the states, it can be readily seen that the bureau must refrain from making tables for any state until full returns are in or until it is known that the missing reports will never come in.

During the last two weeks some of the questionnaires sent out last December have come in with the notation, "not in business last year." The bureau's statisticians would have been greatly relieved, and their work facilitated, if the operators had sent this notification last January. The entire mining industry would benefit if the few plants which are in the habit of waiting until they receive four or five requests would adopt the policy of filling out their questionnaires immediately upon the closing of their books at the end of the year.

Even with the delay mentioned, the bureau expects to get out its accident statistics for 1920 three or four months earlier than usual.

#### COAL FATALITY RATE INCREASES

**A**CCORDING to reports from the various state mine inspectors, 127 men were killed during March, 1921, in and about the coal mines of the United States, as compared with 181 in March, 1920, the decrease being 54 fatalities, or about 30 percent. For the same months, the output of coal fell from 54,689,000 tons to 37,432,000 tons, a decrease of 17,347,000 tons, or 32 percent. Based upon the production for March of last year, 3.31 lives were lost for each million tons of coal produced; for March, 1921, the corresponding fatality rate was 3.40 per million tons mined.

The largest number of fatalities occurring in any state was in Pennsylvania, where there were 47 fatal accidents in the anthracite field and 8 on the bituminous districts. There were 17 fatalities in West Virginia; 10 in Illinois; 10 in Ohio; 9 in Alabama; and 7 in Kentucky.

The average number of lives lost during March of each year from 1913 to 1920 has been 209. The production of coal has averaged 49,324,125 tons, showing a fatality rate of 4.24 per million tons as representative of the month of March for the last eight years.

## THE GOLD MINING SITUATION

By F. ALBERT MORRISON  
Member of the American Mining Congress

A VERY ABLE STATESMAN once said, "The country that controls gold, rules the world," and it is conceded that the commercial control of the world's gold supply is held by Great Britain and the United States, not so much because of their federal gold reserves but because of their gold production. Great Britain and its possessions produce 70% of the whole world's annual output, which is approximately \$340,000,000, while the United States, including the Philippine Islands, is only producing about 14% of this amount.

The total production in 1915 was close to \$469,000,000. Note the drop in production in the period between 1915 and 1920.

The United States and Great Britain are also the principal consumers of gold. Statistics from the Bureau of the Mint are that in 1918 more than 40% of the domestic output of new gold was used in arts and industries and the United States probably consumes more gold for these purposes than any other country. The Director of the Mint reports that in 1919 the United States used gold in manufacturing and for other industrial purposes to the value of \$75,000,000, which was fifteen millions more than its own total production for that year, while the 1920 production dropped down to the \$49,000,000 mark and the consumption in arts and industries still further increased.

This data is not mere guess work but is taken from the latest reports of the Bureau of the Mint and the United States Geological Survey.

We are daily reading of the immense quantities of gold being shipped into the United States in payment of foreign trade obligations. The United States Federal gold reserve is now close to \$3,250,000,000 while our 1920 gold production was some \$52,000,000 less than in 1915. Real prosperity has little to do with the amount of gold coin piled up in the government vaults. What must be done to insure the future value of our American dollar? We will have to get back to pre-war conditions and our former gold production because the time may come when we in turn must uphold the standard of our money. Today the United States needs no credit; nevertheless, reversed conditions would change this. A country's credit is somewhat based on its natural resources but its gold is the source with which its money standard is backed. Professor O. M. W. Sprague, of Harvard University, has pointed out how a country's credit may be estimated. He says: "Every pound of gold a country holds in reserve establishes a ratio of credit seven times that amount."

When foreign exchange returns to its normal state, and it is bound to happen in due time, our present heavy gold imports will immediately change to gold exports. Those who have studied the gold question in the United States have come to the conclusion that we must increase our production if we are to meet the situation,

as above mentioned, and to do this some relief for the gold producer must be forthcoming from some source. With the passing of the revised McFadden Gold Bill now pending in Congress the United States' gold producers will find themselves able to assist in keeping up the country's credit by producing more gold to offset the decrease of foreign imported gold, which is bound to happen when foreign exchange becomes normal.

Abraham Lincoln's message to the miners in the West at the conclusion of the Civil War, and just a few hours before his death, was: "Now that the rebellion is overthrown, and we know pretty nearly the amount of our

national debt, the more gold and silver we mine we make the payment of that debt so much easier. I shall promote their interests (the miners') to the utmost of my ability; because their prosperity is the prosperity of the nation, and we shall prove, in a very few years, that we are indeed the treasury of the world."

If the present Congress has a sufficient number of members with some of Lincoln's wisdom and foresight we can expect relief for the miners in the very near future. Considering this a possibility the future of gold mining offers exceptional opportunities.

The fostering of gold mining is of especial importance to California, Arizona and Nevada, but as Mr. W. J. Loring, president of the American Mining Congress, points out, little is known by the new generation of Californians, or our eastern friends, except superficially, of the important part that gold mining played in the upbuilding of the Golden State and it appears to him that an industry that produced such enormous wealth should be stimulated in every possible way.

The total gold production in California since its discovery in 1848 amounts to the enormous sum of \$1,720,496,203. In 1848 California's production was \$245,301; in 1849, \$10,151,360; in 1851, \$75,938,232; in 1852, \$81,274,700, and from 1852 to 1920 production gradually fell off until it got down to \$13,950,000 in the latter year, while the state's past records show that it should have been around \$20,000,000.

Arizona kept up a more favorable production of gold during the War and right across the border of California the little camp of Oatman, Arizona, produced \$3,001,492 in 1920. There are only ten gold dividend payers in the United States and two of them, the United Eastern and Tom Reed, are located at Oatman and with the passing of the McFadden Bill the original Gold Roads mine in this camp will in all probability become another dividend, not to mention hundreds of other properties possessed of enormous tonnage of low grade ores that cannot be produced at a profit under the present day conditions and are now standing stagnant throughout the West.



F. ALBERT MORRISON

## THE GOLD STANDARD

**EDITOR'S NOTE.**—The following statement is from the Monthly Bulletin of the National City Bank, June, 1921. George E. Roberts, vice-president of the National City Bank, served for fourteen years as director of the United States mint.

THE WORLD came to the gold standard by a process of evolution and elimination, the countries one by one adopting it in order to facilitate commerce with each other and to secure the greatest possible stability of values. The United States finally sealed its adherence to the gold standard by the act of Congress approved March 14, 1900, which declares that "the dollar consisting of 25.8 grains of gold nine-tenths fine, shall be the standard unit of value of the United States, and all forms of money issued or coined by the United States shall be maintained at a parity of value with this standard, and it shall be the duty of the Secretary of the Treasury to maintain such parity."

There has been no modification of this declaration. The pledge stands. The Liberty Bonds are payable in dollars as described in that quotation.

Nominally the United States is on a gold basis, for its money of all forms is maintained at a parity with the gold dollar, but it is not true that 25.8 grains of gold, nine-tenths fine, is the standard unit to which prices and property values are now related. The fact is that at the level of wages and prices now prevailing gold cannot be produced at the rate of 25.8 grains, nine-tenths fine, to the dollar. *Gold production is unprofitable and rapidly declining. The gold standard cannot be permanently maintained without gold production, and in the long run wages and prices must return to the established standard or the standard will have to be changed by reducing the number of grains in the dollar, which would be a deliberate and unjustifiable act of repudiation.*

It is the evident duty of the banking authorities of the country to be guided by the law of the land, and to follow a policy which in the long run will keep the country on a gold basis, with the word "dollar" wherever used having the significance of 25.8 grains of gold, nine-tenths fine. That does not signify a drastic policy, but it means a consistent policy which eventually will give that result, and the business men who talk about stabilizing values at some theoretical level which has no relation to the gold standard probably have not considered the fundamental facts of the situation. The level of prices is not an abstraction; if prices are to have any stability they must be related to some standard of value. The great bulk of the primary products of the country are now selling practically upon the gold standard level. That is the level to which general prices will naturally tend as industry gets back into a normal state of productivity over the world. There would have been less jar and interruption of industry, and losses would have been less severe, if the descent to the gold standard level could have been accomplished more gradually, but since the great body of our products are there, the logical policy for leaders in all branches of industry is to bring prices and costs into harmony with the prices of food stuffs and raw materials.

**SPRY MAKES INSPECTION TRIP.**—Commissioner William Spry of the General Land Office left Washington June 15 on a western inspection trip, accompanied by his secretary, B. W. McLaughlin, and John D. Yelverton, chief of the field service. He held a three-day conference in Denver beginning June 18 and one in Salt Lake City June 22, each conference being with field men in charge of different territories. His object was to get acquainted with the field men and secure their ideas about the work of the General Land Office.

## CALIFORNIA MINING LEGISLATION

(By ROBERT I. KERR, Secretary, California Chapter, American Mining Congress)

PRACTICALLY no legislation detrimental to the mining industry was passed by the forty-fourth session of the California legislature. Considerable proposed legislation having for its purpose the regulation of the oil industry was introduced, but all of it was defeated.

Several so-called "efficiency and economy bills," consolidating a great many of the state commissions, were passed and approved by the governor. The principal effect of these bills upon the mining industry will be a material reduction in the number of inspectors and inspections authorized under the present law.

Resolutions memorializing Congress to pass the McFadden Bill and to protect the quicksilver industry by appropriate tariff legislation received almost unanimous endorsement. The well known "Collar to Collar" bill was not introduced.

Senate Bills Nos. 259 and 308, introduced at the request of the Industrial Accident Commission, proposing drastic amendments to the Workmen's Compensation, Insurance and Safety Act and providing for the regulation and inspection of electrical equipment, were defeated and tabled by the Judiciary Committee of the Senate after a hearing ably presented by both the opponents and proponents of the measures. Several amendments to the penal code relating to the protection of labor engaged in the construction, alteration and repair of buildings and structures, and rules relative to the inspection of elevators therein, introduced at the request of the said commission, were passed and approved by the governor.

Assembly Bill No. 1300 introduced by Schmidt of San Francisco at the request of the Boilermakers' unions, providing for the repeal of the boiler inspection act, approved May 9, 1917, passed both houses and was approved by the governor on June 3.

Amendments to the Workmen's Compensation Act, proposed by organized labor, eliminating the waiting period, increasing the weekly benefits and compelling all employers of labor to carry insurance with the State Compensation Insurance Fund, were not reported out by the committees to which they were referred.

Senate Bills No. 10 by Boggs, providing for a mining and metallurgical laboratory at Berkeley, and No. 821 by Ingram providing for a fund for making an economic report on the gold resources of California, were not reported out by the Senate Committee on Finance.

Proposed legislation, providing for industrial peace and arbitration in case of strikes, for a universal eight hour work day and for the licensing of persons operating steam boilers and engines, was not considered.

Assembly Bill No. 782 by Beal, reserving to the state all mineral and mineral deposits in state lands, and providing for their disposition only upon a rental or royalty basis, passed both houses and was approved by the governor on May 25. This is a measure introduced at the request of the Surveyor-General and provides for the disposition of state mineral lands on a 1/16 royalty basis under a plan similar to the Federal Mineral Land Leasing Act.

Assembly Bill No. 1102 by Lewis, providing for an appropriation of \$30,000.00 to be used in the construction of restraining dams for impounding tailings from mining operations, etc., provided a like appropriation be made by the federal government, passed and was signed by the governor May 26.

## OPTIMISM PREVAILS AMONG NEW MEXICO MINING MEN

(Correspondence by BURTON BUNCH, Secretary of New Mexico Chapter.)

**A**LTHOUGH the closing of the mines in New Mexico came just at the time when the New Mexico Chapter, American Mining Congress, was getting nicely under way, the resultant depression did not cause a suspension of effort and support. The chapter is little more than six months old and had not yet enlisted the assistance of all mine companies and individuals possible to obtain as members of the state body. Headquarters are maintained in Silver City, in the county in which the state's biggest concerns are operating, so that an agreement entered into last October with the Grant County Chamber of Commerce, which is well supported by the large mining companies, enabled the Chapter to continue its functioning without halt. Since the mining business is the leading industry of Grant County, it seemed fitting that the secretary of one organization should serve as secretary of the other.

Except for a watch on developments of interest to the industry, such as proposed legislation for the suspension of mine assessment work and similar other legislation, there has been little activity in the office. At the same time, however, mining men of the state are generally optimistic, and are making ventures based on their certainty that conditions affecting all mining will return to normal. One of the most striking of such ventures, perhaps, is the re-opening of the old Volcano Silver Mine near Stein's Pass, Hidalgo County, near the Arizona line. It has proven within the last few weeks, according to report, to be virtually a bonanza like those which brought hundreds of people to the southwestern part of the state in the eighties.

The Volcano mine was closed in 1900, after about \$100,000 in silver had been taken out. Recently C. W. Mitchell, T. C. McSherry and others of Silver City found that the original workings had missed the true vein from two to twelve feet. Developments since that time have verified the early assumption that a great body of silver had been discovered where earlier workers had prepared the way for a cheap way of extracting it, by the sinking of shafts and the running of drifts. The vein upon which the Volcano is located is thirty-five feet wide and can be traced for several miles. Present operators have control of 9,000 feet along this vein.

The ore now being shipped comes from a point on the 100-foot level, about 200 feet from the shaft. The ore has been entered for a distance of about sixteen feet, and the other wall of the vein has not been reached. For a width of ten feet the ore shows silver chloride and bromides with considerable horn silver. The owners believe they have an ore body so extensive that millions of tons of ore which can be handled profitably will be developed.

**RADIUM BEARING TORBERNITE.**—Attention has been directed recently to the radium bearing torbernite ore found in large quantities at White Signal, Grant County, near Silver City, by the presentation of quantities of the ore to Mme. Curie by Senator Bursum of New Mexico as a representative of the owners of the property. The ore was turned over to the Smithsonian Institute for shipment to Paris, but the specimens were so interesting that the curators of that institution have requested that specimens be sent to Washington for exhibit. Although the torbernite will run a gram of radium to 600 tons, according to claims, no satisfactory method of reduction has been developed. The ore is now being used by a sanitorium company in charging water with radioactive rays for medicinal purposes.

**NEW MEXICO BUSINESS BRIEFS.**—The Gagan Mines Company, of which J. J. de Praslin is president, was recently incorporated in Santa Fe, with a capitalization of \$3,000,000, of which \$982,580 has been issued. The company is successor to the United Sulphur & Development Co., and will have headquarters in Albuquerque.—A revival of mining in the Red River district of Taos county has been reported. It is said that twenty men were recently added to the force in the Caribel Mine, and that the mill on this property has been completed. The Jayhawk group nearby is being reopened by the same company for development.—Recent development on properties of the San Rafael Mining Company near Raton are said to have shown marked improvement in the ore bodies. Announcement has been made by J. F. Garcia, secretary, that the mines will resume operations immediately.—The Ruth lead-silver mine in the Lordsburg district has been optioned to Frank G. Kaerwer, of El Paso, Texas.—Reorganization of the Octo Mining Company, with properties in the Lordsburg District, has been announced. The new name will be The Anita Copper Co. Indebtedness of the old company has been liquidated. The new organization is prepared to reopen the mines, according to report.—The enlarged mill of the Co-operative Mining Company, Lordsburg District, was recently opened for a test run of twenty-four hours. The extraction was 91.50 per cent, which exceeded the expectation of the builders.—A recent assay of gold ore from a property at Gold Hill, near Lordsburg, Hidalgo County, returned 336.82 ounces.

## ARIZONA OPPOSES OIL TARIFF AND FREIGHT DISCRIMINATION

(By J. E. CURRY, Secretary Arizona Chapter, American Mining Congress.)

**O**PPOSITION to the levying of a tariff upon Mexican oil, and to freight rate reductions from Pacific terminals east but without including Arizona points, was expressed in resolutions adopted by the Arizona Chapter of the American Mining Congress at a meeting in Bisbee June 15. The resolutions follow:

### *Duty on Petroleum*

WHEREAS: Officials of the United States Government have repeatedly warned the American people that fuel oil and other petroleum products are vital to the navy, and to the shipping and manufacturing industries of the United States, and that the domestic reserves of petroleum are being so rapidly depleted that for the safety of the country it is necessary for American companies to secure control of foreign oil properties and

WHEREAS: At present the Secretary of State is carrying on negotiations with foreign countries to allow American companies to obtain concessions in foreign oil fields, in order that domestic reserves of oil may be conserved, and

WHEREAS: Large quantities of petroleum are now being imported into the United States from Mexico and from other countries, thereby to some extent relieving the oil fields of the United States from excessively rapid depletion, and

WHEREAS: The present disorganized condition of the oil industry in the United States is merely the result of the temporary curtailment and readjustment in other industries, and is in no way due to a production of petroleum which would exceed the demand in normal times, and

WHEREAS: If a high import duty is placed on crude oil, when a general revival of business comes there will be a great scarcity of petroleum and its products in the United States, resulting in famine prices even higher than those which prevailed during 1919 and 1920, and in a very rapid depletion of the petroleum reserves of the nation, and

WHEREAS: In particular the mining industry of Arizona depends in a large degree on regular and guaranteed shipments of fuel oil from Mexico at a moderate price, as was shown by the fact that in the fall of 1920 most American producers of fuel oil refused to make or renew contracts for the delivery of fuel oil at

any price, and by the fact that at that time the Standard Oil Company of California publicly urged its former customers to replace oil burning apparatus by coal burning apparatus, which would entail a much greater cost for power.

THEREFORE BE IT RESOLVED by the Arizona Chapter of the American Mining Congress, on this 14th day of June, 1921, that the imposition of an import duty on crude oil is contrary to the best interests of the United States; and

BE IT FURTHER RESOLVED that a copy of these resolutions be sent to the Senators and Congressmen from Arizona, to the Governor of Arizona, and to the National Secretary of the American Mining Congress, with the urgent request that they use all possible means to prevent the imposition of such a duty.

*Freight Rates*

WHEREAS: The Transcontinental Railroads have announced their intention to apply to the Interstate Commerce Commission for permission to establish reduced rates to the Pacific Coast terminals without reductions to points within the State of Arizona,

AND WHEREAS: The people of Arizona are dependent upon eastern manufacturers for articles of commerce, machinery, implements, etc., necessary for the development of our mines and farms, and many wholesale merchants have established themselves in Arizona for the purpose of distributing these manufactured products,

AND WHEREAS: Just and reasonable freight rates are vitally necessary for the transportation of these products as well as for the products of our mines and farms and livestock, and the proposed rates will militate against all developments in our state and entails serious losses upon those who have invested large sums of money in its development,

AND WHEREAS: No such prejudicial rates are imposed on any other section of the United States except in that territory known as the Inter-mountain country, which includes Arizona,

AND WHEREAS: Under the act to regulate commerce, we are entitled to rates that are just, reasonable, non-discriminatory and non-prejudicial,

BE IT RESOLVED: That we oppose the establishment of the rates proposed by the railroads and we protest to the Interstate Commerce Commission, our representatives at Washington, and other governing bodies, to the end that just and reasonable rates be established for all sections of the United States, and preferential rates to none.

Col. John C. Greenway, general manager of the Calumet and Arizona Mining Company and the New Cornelia Copper Company, made an address in which he pointed out the advantages which would accrue to Arizona from the construction of a railroad outlet to the Gulf of California.

"There is a great field for the copper mining industry in Arizona by securing an outlet on the Gulf of California," he said. "This can be accomplished by the extension of 102 miles of track to a point that can be made suitable for the purpose by the construction of a breakwater and pier. This would be an extension of the little road from Gila Bend to Ajo, and from there to the Gulf. The route is easy, and the construction would be comparatively inexpensive."

Colonel Greenway expressed his belief that at the time the Gadsden Purchase was made an outlet for Arizona on the Gulf was purposely blocked by California, which desired to handle commerce of all the western states through her ports. Arizona copper companies could save \$6,000,000 annually by shipping over such a route as he proposed.

"The freight situation with regard to bullion," he said, "is this: In 1907 the rate from Douglas to Brooklyn was \$8.55, and the present rate is \$20. The railroads expect to make a reduction to \$16.50 and say that they cannot reduce further. I accept the fact that they cannot reduce further, and believe that this road to the gulf would be great for the copper producers of Arizona."

**FIVE-METAL PRODUCTION OF FOUR WESTERN STATES**

THE SECOND advance report on the five-metal production for Montana, Idaho, Utah and Washington during 1920 has been issued by the U. S. Geological Survey. The figures, which, in the main, are similar to those issued in the first report earlier in the year, are as follows:

**MONTANA**

	1919	1920
No. of producers.....	457	457
Ore treated (short tons).....	4,183,594	5,241,615
Gold (ounces).....	107,856	89,550
Silver (ounces).....	12,541,181	12,579,178
Copper (pounds).....	169,981,288	177,059,260
Lead (pounds).....	34,437,764	31,253,916
Zinc (pounds).....	168,763,823	184,337,786
Total value.....	\$62,037,191	\$65,573,047

**IDAHO**

	1919	1920
No. of producers.....	210	163
Ore treated (tons).....	1,457,395	1,958,401
Gold (ounces).....	34,502	23,490
Silver (ounces).....	5,579,056	7,326,794
Copper (pounds).....	3,122,763	2,538,396
Lead (pounds).....	182,341,898	249,609,976
Zinc (pounds).....	15,994,229	27,932,326
Total value.....	\$18,374,315	\$31,170,176

**UTAH**

	1919	1920
No. of producers.....	179	165
Ore treated (tons).....	6,745,423	6,800,180
Gold (ounces).....	104,464	97,454
Silver (ounces).....	11,649,961	13,106,976
Copper (pounds).....	124,061,807	116,931,238
Lead (pounds).....	123,829,051	140,838,113
Zinc (pounds).....	4,431,024	8,157,739
Total value.....	\$45,169,328	\$49,744,334

**WASHINGTON**

	1919	1920
No. of producers.....	49	44
Ore treated (tons).....	100,879	85,318
Gold (ounces).....	12,232	5,846
Silver (ounces).....	259,384	199,678
Copper (pounds).....	1,676,576	1,983,134
Lead (pounds).....	2,146,157	5,787,247
Zinc (pounds).....		426,296
Total value.....	\$968,961	\$1,200,932

**VETERAN WESTERN MINER DIES**

W. S. McCORNICK, veteran financier and business man of the west, died at Salt Lake City May 18, after a gallant but unsuccessful effort to recover from an illness which necessitated an operation two weeks previously.

Mr. McCornick was one of the largest factors in the development of mining in Utah. He was essentially a builder, and to his personal participation and the abundant financial resources he commanded may be attributed the success of many mining enterprises of the state. He was active in other lines, including banking, merchandising, live stock and railroads, but his intimates always knew that the mining industry was closest to him.

Mr. McCornick was a native of Canada and was in his eighty-fourth year. He went to California as a youth and subsequently to Nevada, where he participated in the interesting activities of early-day mining in that state. He founded the banking house of McCornick & Company in Salt Lake City in 1873, and the institution soon became and remained the largest in the state. Following his death, the business was taken over by Walker Brothers, bankers, of Salt Lake, as Mr. McCornick's heirs wished to retire from the banking business.

## HALF-BILLION DOLLAR BURDEN PROPOSED FOR THE MINES

**M**INE OWNERS WOULD PAY nearly half a billion dollars yearly into the federal treasury under the terms of H. R. 6,773, introduced early last month by Representative Oscar E. Keller, of Minnesota. The bill levies an excise tax upon the privilege of the use and enjoyment of land holdings based upon their unimproved value. The tax would be one percent upon all value in excess of \$10,000, and the tax upon approximately half of \$108,000,000,000 would be paid by the so-called "natural monopolies," which includes the mines.

Speaking in support of his bill, Representative Keller said that monopoly, rather than agriculture, industry and the processes of production, should bear a special tax burden through the levy upon the privileges of its enjoyment when such monopoly extends to large and valuable tracts of land. For the purpose of the tax, the bill defines land to be "the surface of the ground with all easements in, on and over the same, whether covered by water or not, and including water powers and rights, natural deposits of coal, minerals of all kinds, oils and gases, peats, waters and other substances and not including standing timber or improvements to result in whole or in part of the application of labor to land."

The bill provides that all persons, firms, associations and corporations owning land exceeding \$10,000 in value, whether in possession or leased to others, shall be subject to an excise tax upon the privilege of the use and enjoyment of such excess at the rate of one percent. Where land is leased and the value of the lease is in excess of \$10,000, such value shall be deducted from consideration in determining the tax to be assessed against the owner and shall be charged against the lessee. In the case of joint or other ownership aside from individual, the various owners shall pay the tax in proportion to their interest. It is proposed to apply the tax to the United States, the Philippines and Porto Rico.

The total worth of land values in the United States, Mr. Keller said, exclusive of agricultural land in actual use, is \$108,000,000,000, of which \$45,000,000,000 consists of land which has iron, copper, lead, zinc, gold, silver, marble, granite, coal, oil and gas deposits and timber; \$12,000,000,000 of franchises, pipelines, stock yards, railroad rights of way, terminal and government land grants; \$8,000,000,000 of timber rights and timber lands, and \$3,000,000,000 of water power, fishing grounds and harbor and water fronts. The proposed one percent tax on these holdings, after deducting for improvements and allowing for all the instances of the \$10,000 exemption, would yield \$895,000,000 annually, Mr. Keller said, and the largest part of this tax would be paid by the owners of "natural monopolies," which included mines. Mr. Keller held that owners of natural resources enjoyed special advantages which enabled them to profit more than others, that one-third of the wealth of the nation and one-third of its income bearing properties was included in this classification and that justice demanded that the owners of these privileges pay for the upkeep of the government which protects them in their "monopoly."

Between fifty and sixty billions of dollars of the nation's property consists of vacant city lots, untilled farm lands and undeveloped or unused natural resources, Congressman Keller said, and the imposition of his proposed tax would compel their owners to make them productive, thereby increasing the output of coal and

other necessities of life and, through enlarged competition, reducing the cost of living. The lifting of the tax burden from the producer and the consumer and the placing of it upon the owners of unused natural resources would add five billion dollars annually to the nation's volume of trade, as taxes on land values would make it unprofitable to monopolize natural resources and compel their owners to develop them.

Mr. Keller charged that coal, oil, timber, lumber, water power and other natural resources had been monopolized by a comparatively few, saying that of the 16,153,000,000 tons of anthracite coal in Pennsylvania more than forty-four percent was owned by one concern and that 60,000 acres of Connellsburg coal was owned by another.

"Not content with taking a reasonable profit as the result of ownership of these natural resources," he continued, "these grasping concerns have the supreme effrontery to participate in a conspiracy to curtail production, as a result of which the public is charged \$20 a ton for coal which cost \$2.40 at the mines."

The same conditions, he asserted, obtained in respect to the ownership of oil lands, the Standard Oil group owning the bulk of the producing petroleum fields and a score of individual stockholders having amassed from \$25,000,000 to \$250,000,000 through ruthless exploitation of the privilege which the existing tax system has permitted them to retain. He insisted that like conditions prevailed in respect to iron ore, copper, lead, zinc, silver, salt, potash and fertilizers, in all of which lies the bulk of the natural resources being owned by comparatively few persons who are enabled to oppress labor and exploit the public because the unused property they hold goes practically untaxed.

Lumber, Mr. Keller said, was monopolized to even a greater extent, and water power in a degree even more dangerous than lumber. He concluded with the statement that his bill would compel the owners of these monopolies to develop them in order to pay the taxes, and that increased production would reduce the cost of living.

**BRASS, BRONZE AND COPPER IN 1919.**—A preliminary census report placed the number of brass, bronze and copper manufacturers in the United States in 1919 at 1,119 and the value of products at \$487,707,000. In 1914 there were only 992 establishments with output valued at \$162,199,000. Of the 1,119 establishments reported, 213 were located in New York, 125 in Ohio; 122 in Pennsylvania; 88 in Illinois; 80 in Michigan; 75 in Connecticut; 72 in Massachusetts; 67 in New Jersey; 44 in California; 36 in Wisconsin; 31 in Indiana; 21 in Missouri; 20 in Maryland; 18 in Rhode Island; 16 in Washington; 10 in Minnesota; 9 each in Kentucky and Colorado; 7 in Texas; 6 each in Louisiana and New Hampshire; 5 each in Iowa and Maine; 4 each in Alabama, Delaware, Georgia and Oregon; 3 each in Nebraska and West Virginia; 2 each in Montana, Tennessee, Utah and Virginia; 1 each in the District of Columbia, Florida, Kansas, and Vermont. The largest amount of the factory output, \$130,736, consisted of castings and machinery fittings. Plates and sheets were valued at \$102,898,000. Lamps accounted for \$1,559,000 of the total output and hardware for approximately \$45,000,000.

### STANDARDIZATION CONFERENCE

**A** MEETING of the General Correlating Committee on Mining Standardization was called by the American Engineering Standards Committee on May 28, at which meeting Charles A. Mitke, chairman of the metal branch of the Standardization Division, and Colonel Warren R. Roberts, chairman of the coal branch of the division, represented the American Mining Congress.

The question of increasing the membership of the committee was discussed. In order to obtain an active working correlating committee for mining standardization limited in membership to those interested in the whole field covered by the committee and at the same time to secure the full co-operation and adequate representation of all organizations dealing with only a part of the work of the committee, it was agreed that the organizations of the country should be divided into two classes according to their interest in the committee's activities, these two groups to be entitled to active and associate membership representation. Organizations entitled to active membership representation on the committee are those national bodies whose whole interest is in mining. National organizations only a part of whose work lies in the mining field are entitled to representation on the committee as associate members, without vote, but to be consulted whenever affairs relating to their parts of the industry are under consideration.

It was voted that the correlating committee for mining standardization form a group of associate members, representative of bodies whose interest is in only a portion of the work of this correlating committee, who can take an active part in the detailed work of the committee without being actively represented in the membership of the correlating committee for mining standardization.

After an informal discussion of the proper function of the correlating committee on mining standardization, it was agreed that it should suggest to the American Engineering Standards Committee subjects for standardization, recommend sponsors, define the scope and limits of a proposed standard, assist in adjusting conflicts or clearing up ambiguities, follow up work under way, and report from time to time upon progress made within its field of activities. It was voted to recommend to the American Engineering Standards Committee that there be organized a sectional committee on "safety rules for installing and using electric equipment in bituminous coal mines"; that there be organized a sectional committee on "portable electric mine lamps." It was also agreed that there should be organized a sectional committee on "storage-battery locomotives for use in gaseous mines"; and that the Bureau of Mines be designated as the sponsor or a joint sponsor for each of the above three sectional committees. Each of the organizations represented on the correlating committee shall be requested to determine without delay whether it desires to become joint sponsor for one or more of these sectional committees, and notify the chairman of the correlating committee.

The desirability of having uniform state laws relating to mining, and the certainty of there being adopted, by the various states, laws in conflict with each other and not in accord with the best interests of the country as a whole, having been discussed, it was agreed that an effort should be made to secure uniform and suitable laws to be enacted by the states.

The chairman requested each member present to give a report of the standardization work being carried on by his organization at the present time.

We summarize below reports which were made verbally by the representatives present:

**AMERICAN MINING CONGRESS**, metal mining: A report has been prepared but not yet published; it is in the press and will soon be issued.

**AMERICAN MINING CONGRESS**, coal mining: Seven committees have been at work and their reports have been completed. These have been condensed for publication but will not be released until the annual report is issued. At the next meeting of the correlating committee it will be possible to present a complete program of the activities of these committees for the coming year.

**NATIONAL SAFETY COUNCIL**: For the last six years various committees have been working on reports dealing with first aid and rescue; hoisting ropes, safe process; mining cars. These have been published in the transactions annually, but copies of the individual reports are not available.

**BUREAU OF MINES**: The bureau has co-operated actively with other interested organizations in issuing publications from time to time based upon the experience of others checked by the laboratories of the bureau. Work is now under way on storage-battery locomotives which eliminates the trolley hazard but introduce troubles of their own; permissible explosives; self contained oxygen breathing apparatus; miscellaneous mine lamps; flame-proof motors for use in gaseous and dusty places; enclosed switches; ladders; and safety catches. These are in various stages of completion, the last-mentioned being in manuscript form.

**AMERICAN INSTITUTE of Mining and Metallurgical Engineers**: The institute is prohibited by its constitution from engaging in standardization, and hence has no standardization program. However, papers relating to safety and similar subjects are published in the transactions.

**THE ASSOCIATED COMPANIES** (eight insurance companies): These companies have no definite standardization program. Various rules are laid down concerning the monetary value of certain risks and these tend to improve mine equipment construction and operation. In this way each of the coal mines insured is made to pay for insurance in accordance with its risks which have been more or less "standardized." The work of "standardization" has not progressed so far in metal mining. The companies have already prepared several pamphlets dealing with these subjects, and additional pamphlets are now under consideration.

After the New York meeting, Colonel Roberts spent several days in Washington going over the work of his sub-committees.

### DR. AGNEW GIVES IMPRESSIONS OF LONDON CONFERENCE

**E**UROPEAN STANDARDIZATION methods are similar to those in vogue in the United States, according to Dr. P. G. Agnew, secretary of the American Engineering Standards Committee, who has just returned from the London meeting of secretaries of national standardization bodies. This method consists in submitting questions concerning specific pieces of work to committees representing the technical and the managerial points of view of the particular branch of the national industry concerned. This method applies to specifications, methods of test or dimensional standardization.

The London conference was called by C. le Maistre, secretary of the British Engineering Standards Association, and there were in attendance the secretaries from Belgium, Canada, Great Britain, Holland, Norway, Switzerland and the United States.

# ROUGH SAILING ENOUNTERED BY COAL REGULATION BILLS

The Frelinghuysen seasonal coal rate bill was sent back to the Senate Interstate Commerce Committee on June 29. This action, taken by a vote of 38 to 26, is believed to have the effect of eliminating legislation dealing with the coal industry from further consideration during the present session. Senator Frelinghuysen's other coal bill, providing for "stabilization" of the industry, mainly through compilation of statistics by the Department of Commerce, probably would also have been recommitted had it formally reached the floor of the Senate when the seasonal rate measure was dropped.

THE FRELINGHUYSEN "stabilization" and seasonal rate bills have passed the first anti-climax of their hand-in-hand legislative career by becoming subjects of debate on the floor of the Senate. The "coal dust twins" have thus set a new record for progress made by legislation dealing exclusively with the coal industry.

The "lay of the land" is being revealed accordingly in respect to circumstances surrounding the bills, to which determined opposition is being asserted, both by the industry and Senators who doubt the practicality of the measures.

Crowning the entire situation is the almost human impossibility for the Interstate Commerce Commission—or any other body—to adjust seasonal rates so as to take into consideration correctly the multitude of local conditions throughout the country that vitally bear on the subject.

However complicated the conditions surrounding the seasonal rate bill may be, a still more involved set of tangles, and consequently a harder legislative fight, is centered in the stabilization measure.

This bill brings a direct factional contest between proponents and opponents of government regulation of industry.

While senatorial advocates of the bill declare that it is merely a plan to stabilize the industry through compilation of statistics and other means and that it is not regulatory in nature, none can successfully deny that it will form a hat-rack for all sorts of regulatory and radical amendments if it is enacted.

It was at conferences recently held between Secretary of the Interior Fall and Secretary of Commerce Hoover, Senator Frelinghuysen and committees from the various branches of the industry that the first real expressed antagonism to the bill made its appearance.

Senator Frelinghuysen held just as firmly to his position that no vital change would be made in the bill and it soon became apparent that the conference would result in little else than clearly defining the breach which existed. Senator Frelinghuysen flatly turned aside the two alternatives offered by the coal men: first, the plan for voluntary rendering of statistics by the industry; second, that the bill be broadened so as to include all industries instead of singling out the mining and marketing of coal.

President J. G. Bradley, of the National Coal Association, pointed out that the present clamor is largely due to failure of the public mind to realize that conditions bred by and following the war are rapidly being rectified and that the problems will solve themselves through natural channels if given a chance.

"There is no need for further legislation," said Bradley. "The coal men are willing and anxious to co-operate with the government and to furnish any facts regarding the business that the government desires. They will

work out this situation to the satisfaction of everybody concerned if given a chance. In view of this entire readiness of the coal industry to assist Secretaries Fall and Hoover to obtain and publish immediately and currently the facts in regard to production, distribution and prices which they desire for the information of the government, the public and the industry, we assume that the government will follow its announced policy of less government in business and will not countenance inquisitorial legislation with respect to the industry."

Secretary Fall emphasized the statement that present conditions must be remedied, forecasting the probability of entry by the government into the field as a stiff competitor against the industry in years to come if co-operative efforts at the present were unavailing.

Secretary Hoover gave his opinion that production and distribution figures are necessary for the protection and stabilization of the industry, but singled out cost data as having no direct bearing or virtue toward accomplishing these ends.

Both Secretary Fall and Secretary Hoover left the conference early in its first day, convinced that a state of dead-lock existed and that nothing tangible was to be gained by their continued attendance.

## PRESIDENT COYLE LEADS WHOLESALE COAL OPPOSITION

A N UNQUALIFIED STAND against government interference was taken by the American Wholesale Coal Association at the annual convention, held in Washington June 7 and 8. The position of the association was expressed both in a resolution and by the new president in his inaugural address.

That part of the resolution dealing with this subject was as follows:

"We endorse emphatically the action of this convention in 1920 condemning the efforts toward federal control of coal; we record with no little pride our own part in the repeal of those war-time laws by which Congress divested itself of power in favor of various administrative officers, and under our own power to petition the government sincerely and in the name of five millions of Americans engaged in coal and allied industries request, nay, even of our right demand, that no more socialistic experiments be tried under the guise of friendly or adverse legislation on this industry which is but just beginning to recover from the effects of too many doctors."

W. R. Coyle, the new president, predicted the thorough stabilization of the coal industry during the forthcoming year—not its stabilization through legislative enactment, of course, but through ordinary reconstructive business methods. He said, in part:

"No industry in this country underwent such tremendous and far-reaching changes in the transition from a pre-war to a wartime basis as the coal business. The process of readjustment and the return to a normal stable level has been painful and fraught with difficulties, but the end is in sight, and complete stabilization of the coal business of this country is one of the things we may confidently look forward to during the coming year."

"Men of the coal business are anxious to maintain harmonious and sympathetic relations with their customers and the consumers of coal and with the public at large. Coal is a basic industry, and on its sound, stabilized production and distribution rests in large measure the business and commercial prosperity of this country."

"Normal conditions cannot prevail in the coal industry when

there is constant interference of regulatory measures and bills in national and state legislatures or proposals to put the industry under arbitrary and restrictive rules. The uncertainties of business are sufficiently great without the added uncertainties of drastic and intensive regulation by federal laws.

"Business confidence between dealers and consumers is not established on a basis of intensive public regulation, but in mutual confidence and an understanding by each of the problem of the other. The coal industry supplied all the needs and requirements of America before the war and it will do it again. The great mass of coal dealers are exerting their efforts to stabilize conditions of coal production and distribution, which will enable them to perform the duty of giving the people of the country a steady and uninterrupted supply of coal adequate for their needs throughout the year. The coal industry will right itself from the effects of the war, just as other American business is doing."

Mr. Coyle, the new president, whose residence is Bethlehem, Pa., succeeds C. L. Couch of Buffalo. C. L. Deering of Chicago was elected vice president and G. H. Merryweather of Chicago was re-elected secretary and treasurer. The following were elected directors:

R. T. Daniels, National Coal and Coke Company, Birmingham; G. H. Reeves, Reeves Coal and Dock Company, Minneapolis; W. J. Teter, W. J. Teter Coal Company, Indianapolis; John J. Sheehan, Dominion Coal and Coke Company, Baltimore; W. E. Macurda, Garfield and Proctor Coal Company, Boston; C. C. Corey, Detroit; C. A. Weinhart, Commercial Coal Company, Grand Rapids; R. H. Lee, J. H. Leonard Coal Company, Kansas City; Alexander Yule, Pioneer Coal and Coke Company, St. Louis; F. S. Martin, F. S. Martin & Co., Omaha; J. Conrad Max, J. Conrad Max & Co., Utica, N. Y.; J. Bert Ross, J. Bert Ross Coal Company, Buffalo; H. L. Frostbauer, Lake City Coal Company, Cleveland; W. D. Eyre, Eyre Fuel Company, New York; Fred Legg, Yogan and Kanawha Coal Company, Cincinnati; J. M. Taylor, John M. Taylor Coal Company, Columbus; H. J. Heywood, W. A. Gosline & Co., Toledo; R. H. Knode, Wentz Company, Philadelphia; Jay W. Johns, Straub-Atkinson Coal and Coke Company, Pittsburgh; W. J. Prescott, Memphis Coal Company, Memphis; L. S. Evans, Eastern Coal and Export Corporation, Richmond; M. L. Taylor, Morgantown Coal Company, Morgantown, W. Va.; C. G. McGill, William McGill & Co., Toronto; J. F. Hersey, Cherokee Coal Company, Louisville; H. M. Bowman, New England Coal Agency, New Haven.

**MAY ANTHRACITE SHIPMENTS.**—As reported by the Anthracite Bureau of Information, Philadelphia, anthracite shipments during May amounted to 5,793,895 tons, or 173,570 tons less than April and 361,983 tons less than May 1920. Shipments in May a year ago were unusually large because the switchmen's strike had just terminated.

**COAL TRADE WITH RUSSIA.**—Although private trading between the United States and Soviet Russia has been permitted for a considerable period of time, very little trade has developed as respects American coal. Several cargoes of American coal have been referred to in the Soviet press, but efforts to identify them through references to amounts or to the steamers on which they were transported have proven unavailing. A large consignment which reached Russia from the United States several months ago had a material effect in mitigating the fuel shortage in Petrograd. The shipments which have been made have probably been negotiated through some Estonian bank via Sweden. Since the gold in Russia is dwindling, it is doubtful whether many more purchases can be made from the United States even if the Soviet government should be disposed to encourage such orders.

## ALL HOPE FOR LOWER FREIGHT RATES ON COAL APPARENTLY LOST

THE INTERSTATE Commerce Commission has apparently conceded the futility of plans to use reduced freight rates on coal during the present season as means of warding off the transportation "jam" it expects when the peak of bituminous buying for winter consumption is reached.

With stubborn opposition confronting the Frelinghuysen seasonal rate bill and the heavy coal shipping period drawing closer, the commission evidently has reached the conclusion that it can do little else than ask the largest consumers to buy coal now for storage, even in the face of a lack of special inducement for the action.

Accordingly, appeals have been made to the railroads, public utilities and other large bituminous consumers, asking that they "acquire reasonably liberal reserve supplies at the present time" in order that a repetition of last year's stringency be avoided. The commission has taken this action after devoting deep study to the situation following President Harding's recently expressed desire that transportation congestion of seasonal commodities, notably coal, be prevented through a system of seasonal rates, if possible.

Secretary of Commerce Hoover joined with the commission in placing the administration's power back of the overtures made to the railroads with the aim of inducing them to make voluntary reductions by which the President's desire in reduced rates might be achieved without the necessity of lengthy hearings. These efforts of the administration have proven futile, as Secretary Hoover admitted last week, despite the strength of efforts behind them.

## COAL EXPERT JOINS MINES BUREAU'S STAFF OF CONSULTANTS

CARL A. WENDELL, of New York, has been appointed consulting engineer of the United States Bureau of Mines in matters relating to coal washing and coal preparation. Mr. Wendell will leave early in July to visit several eastern stations of the Bureau of Mines, and later will advise with bureau officials as to a program for further development work in investigation and improvement of coal preparation methods.

The principal work of the bureau along this line is being conducted at the Middle West station at Urbana, Ill., and at the Northwest station at Seattle, Wash. Research is being carried on at Urbana, using the laboratory of the University of Illinois, in order to assist in the development of successful methods for cleaning high sulphur coals, particularly coals of the central western field, and to render them suitable for gas manufacture and coking. Data is being collected on factors that affect the washability of a coal; accuracy of sink and float tests on various types of coal; drying washed coal; coal washing with concentrating tables; a basis for the comparison of results of washing tests; and recovery of coal wasted at washers.

The experimental work at Seattle is designed to improve for commercial use the coals of the northwest, which are rarely free from bone and shale or clay partings, and which, owing to the folding and faulting of the measures from which mined, generally contain a large proportion of impurities.

Mr. Wendell has specialized in coal-washing problems in this country since 1903. From 1908 to 1913 he was in charge of the coal washing investigations of the United States Steel Corporation at Joliet, Illinois. Since 1913 he has given his time to such matters in a general consulting capacity.

## THE SWEDISH COAL SITUATION

By DR. HENRY M. PAYNE, Chairman, Coal Export Committee, American Mining Congress

ONE of the criticisms of American coal exporters is their unwillingness to ship less than full cargo lots. British exporters will deliver as low as 400-500 tons at a time. With a fluctuating market, the risk of financing a large shipment is very great. A willingness to make smaller shipments would be equivalent to and often better than extending credit.

Low volatile coal is preferred, and discharge at Swedish ports is good. Sweden is not dependent on coal, however, as during the war when coal prices were abnormal the various industries used cordwood, of which there is an abundance.

Up to 1920 the coal supply came principally from Great Britain. In 1920 about 40 percent of the importations came from the United States. At present large stocks are on hand, and the placing of future orders will depend on the English coal situation.

Before the war Great Britain extended ninety days credit to Swedish importers. During the war, however, English coal exporters required cash against documents, as in America.

Return cargoes of wood pulp, paper and iron ore are the most frequent. There is a heavy demand for coke and a good coking coal is therefore essential. The English coal used in the past has rarely exceeded 1½ percent in sulphur.

Storage facilities are good, and on account of the ice in winter the year's supply is usually taken in during the summer months.

Automatic stokers are being installed in increasing numbers, with the result that larger quantities of slack coal are being used.

About 300,000 tons of lump gas-coal and 4,700,000 tons of run of mine steam coal, and coke, are imported into Sweden annually.

If European coal cannot be secured at a comparable price in the future, the United States is the logical source of this supply.

#### CONGRESSMAN PROTESTS PENNSYLVANIA TAX ON ANTHRACITE

REPRESENTATIVE Clarence MacGregor of New York has written a letter to Governor Nathan Miller protesting against Pennsylvania's new tax of one and one-half percent upon anthracite. The law goes into effect July 1. Congressman MacGregor asks Governor Miller to protect the citizens of New York, and to call upon the other Congressmen from New York, the governors of anthracite consuming states and the Attorney General of the United States to take steps to annul the burden placed upon consumers. His letter follows:

June 2, 1921.

Hon. Nathan Miller,  
Executive Chamber,  
Albany, N. Y.

My Dear Governor:

On May 11, 1921, the governor of Pennsylvania signed an act of the legislature placing a tax of one and one-half percent on anthracite coal at the mines. It is anticipated that this tax will yield from seven to ten millions of dollars and thus the people consuming anthracite coal will be required to contribute to the expense of the government of the state of Pennsylvania.

In view of the fact that anthracite coal is a necessity to millions of people and they are now groaning under the burden imposed

upon them by the profiteers it is a crime against decency for the state of Pennsylvania to give this additional opportunity to further increase the burden. If it were a tax upon a luxury or an article that was generally produced there would not be any cause for complaint, but anthracite coal is produced solely in the state of Pennsylvania. It is heart-sickening to contemplate the suffering that will ensue among the poor people during the coming winter who will be unable by reason of their poverty to pay the price demanded. It would seem that the anthracite producers would recognize that they have a duty to society but it is apparent that they do not have this realization. There is bound up in the situation grave danger to the Republic. When hunger and cold confront millions of people the government is in danger and when those who control this great necessity of life and happiness prevent its enjoyment by the mass of people they are unworthy citizens and enemies to the welfare of the nation.

The state of Pennsylvania has joined hands with the profiteers to squeeze the people. The tax will undoubtedly be made the basis of a further increase. Action should be taken by the state of New York to protect its citizens and to this end I would respectfully ask that you, as the governor of the Empire State, call upon the members of Congress from New York to give their aid in the righting of this wrong and also to appeal to the governors of other anthracite consuming states to give their aid and at the same time to call upon the Attorney General of the United States to take immediate steps to annul this burden placed upon the people by the state of Pennsylvania.

Sincerely yours,

CLARENCE MACGREGOR.

#### PRELIMINARY LIGNITE REPORT SUBMITTED TO BUREAU DIRECTOR

D R. ERICH W. ZIMMERMANN, consulting economist of the United States Bureau of Mines, has submitted to Director H. Foster Bain a preliminary report on the marketability of beneficiated North Dakota lignite. The report analyzes the conditions surrounding and the difficulties affecting the fuel supply of North Dakota and South Dakota and contiguous territory. The ultimate purpose of this study is to provide the necessary economic data upon which an estimate of the commercial possibilities of beneficiated North Dakota lignite may be built up. The report specifically deals with coal production and consumption in the territory mentioned; northwestern fuel prices; northwestern fuel imports with special reference to their sources; the lake coal trade to the northwest; and the railroads and the northwestern fuel supply.

#### PHOSPHATE ROCK EXPORTERS COMBINE

UNDER THE WEBB-POMERENE Act, the Phosphate Export Association has combined for the purpose of export trade with the Florida Hard Rock Phosphate Export Association. The former association comprises four New York firms and the latter five Florida and Georgia concerns. The main offices of the combination will be in New York and branches will be maintained in Savannah and London.

The United States produces more crude phosphate than any other country. Florida contributes approximately 80 percent of the national total. Africa ranks second in production. Exports in 1920 aggregated 344,896 tons of hard rock, shipped from Fernandina and Jacksonville, and 693,355 tons of land pebble, shipped from Tampa, Port Tampa and Boca Grande. A market for Florida land pebble has been established in Great Britain, Continental Europe and Japan.

## WHY NAVAL RESERVES WERE PLACED IN INTERIOR DEPARTMENT

**T**RANSFERENCE of the administration of naval oil and shale reserves from the Navy to the Department of the Interior, ordered by President Harding, was hastened because of a condition which arose in Naval Reserve No. 1, in California. Wells which had been drilled on adjacent property drew oil from naval reserve lands, making it necessary to offset this condition by drilling on government lands.

On April 15 the Secretary of the Navy called for proposals for drilling upon the California reserves, and the bids were to have been opened April 26, but owing to the announced policy of the administration to bring about closer co-operation between the departments, which included a re-organization of the departments themselves and a re-allocation of departmental activities, the opening of the bids was delayed.

In order to further this plan which had been decided upon by the President, and which had met with general public approval, the secretaries of the Navy and the Interior jointly placed before the President the suggestion that the handling of naval petroleum reserves be placed under the supervision of the Secretary of the Interior. The President approved the suggestion and issued the following executive order:

"Under the provisions of the act of Congress approved February 25, 1920 (41 Stat., 437), authorizing the Secretary of the Interior to lease producing oil wells within any naval petroleum reserve; authorizing the President to permit the drilling of additional wells or to lease the remainder or any part of a claim upon which such wells have been drilled, and under authority of the act of Congress approved June 4, 1920 (41 Sta., 912), directing the Secretary of the Navy to conserve, develop, use and operate directly or by contract, lease or otherwise, unappropriated lands in naval reserves, the administration and conservation of all oil and gas bearing lands in Naval Petroleum Reserves Nos. 1 and 2, California, and Naval Petroleum Reserve No. 3, in Wyoming, and Naval Shale Reserves in Colorado and Utah, are hereby committed to the Secretary of the Interior subject to the supervision of the President, but no general policy as to drilling or reserving lands located in a naval reserve shall be changed or adopted except upon consultation and in co-operation with the Secretary or Acting Secretary of the Navy. The Secretary of the Interior is authorized and directed to perform any and all acts necessary for the protection, conservation and administration of the said reserves subject to the conditions and limitations contained in this order and of the existing laws or such laws as may hereafter be enacted by Congress pertaining thereto."

## THE FUEL COST OF MAKING BRICK

**T**ESTIFYING before the House Committee on Appropriations in support of a request for additional funds for investigating heavy clay products, cement, feldspar, slate and other non-metallics, Director H. Foster Bain of the U. S. Bureau of Mines said the world had reached what might appropriately be termed as the "cement age," and that because of the decrease in the lumber supply cement, brick and similar products would be used for building in an increasingly greater extent than heretofore.

The investigations for which the appropriation was sought represented the continuation of an effort begun in connection with the Fuel Administration looking toward reduction of fuel consumption at brick and cement plants. Director Bain said the Bureau of Mines had estimated that the fuel-cost of brick making ranged from 30 to 50 percent of the total, and that this amount

could be reduced by from 20 to 30 percent, a reduction which would go far toward offsetting increased labor costs. Dr. Bain said also that progressive plants are cutting down fuel costs by utilizing waste heat, and that this economy could be effected in the making of brick and cement.

In the investigation, the Bureau of Mines will study raw materials and the Bureau of Standards finished products. Dr. Bain hopes that the investigation will also point out a way to effect a reduction in the cost of handling cement.

## U. S. LEADS IN RADIUM PRODUCTION

**O**RE carrying 42.1 grams (about one and one-half ounces) of radium was mined in the United States in 1920, and the nine American radium plants isolated and placed in tubes 32.539 grams (1.15 ounces), valued at \$3,253,900.

Ordinarily, no one would bother to use fractions of ounces in reporting the total production of any mineral, but radium is so valuable that every particle must be taken into consideration. It is worth approximately \$2,829,478 an ounce, or 136,936 times as much as gold. When such a price is thought of, the old phrase, "worth its weight in gold," becomes trite and useless. Gold and platinum may be measured by the ton and diamonds by the thousand pounds, but radium is measured by the gram, which contains 15.43 grains. Gold and platinum are sold by the ounce and diamonds by the carat (4 $\frac{1}{2}$  grains), but radium is sold by the milligram, which equals only one two-hundred-and-fifth of a carat.

Since 1911, when the first uranium minerals were mined in this country for radium, ore carrying 186.5 grams (6.6 ounces) has been mined and shipped to reduction plants, and about 125 grams (4.4 ounces) of radium has been extracted in this country. Before the World War some ore was shipped to Europe, and the radium was extracted in France, Germany, and Scotland. The quantity extracted abroad was probably not more than 10 grams, though this is a mere guess. The remainder of the 186.5 grams of radium was probably lost, for at first the quantity extracted in some plants was less than 50 percent of the radium in the ore. Probably 25 percent of the total output has been dissipated on watch faces, signs, etc., mostly during the war, some has been exported, and only 80 or 90 grams (3 ounces) has been placed in the hands of physicians and in hospitals. Europe probably almost exhausted its radium supplies by wasting uses similar to ours during the World War, according to the Geological Survey.

Three States produce radium-bearing minerals in commercially valuable quantities—Colorado, Utah, and Wyoming—but Colorado produces nearly nine-tenths of the whole.

No large deposits of radium minerals are known outside of the United States. Some pitchblende has been mined in Austria, England and Germany; autunite and torbernite have been mined in Portugal, Madagascar, Tonkin, and South Australia; some tyuyamunite has been mined in Russian Turkestan; and a little carnotite and some obscure radium minerals have been mined in South Australia. From the ore mined at all these deposits probably less than 40 grams (1.4 ounces) of radium has been isolated.

The whole stock of radium in the world is probably less than 100 grams (3.5 ounces). 100 grams would be worth \$10,000,000. An equivalent amount of gold coin would weigh about 17 tons.

## DISTINGUISHED JURIST BECOMES WAR MINERALS CHIEF

SETTLEMENT of war minerals claims has been suspended pending revision of the entire system of making awards. Judge Ira E. Robinson, the new War Minerals Relief commissioner, is studying the whole situation from the beginning, and at the conclusion of his researches will make recommendations to Secretary Fall, upon receipt of which the Secretary will formulate and announce his plans for doing justice both to the government and to the producers.

Judge Ira Ellsworth Robinson, who took office as War Minerals Relief Commissioner a fortnight ago, is nationally known as a lawyer, jurist, author and educator. Before and after his service on the bench he enjoyed a large and lucrative practice in the federal courts, consisting chiefly of coal, oil and gas litigation. In the recently published "History of the Bench and Bar of West Virginia," it is said that his opinions handed down during his eight years of service on the bench of the court of last resort of that state have "never been excelled in soundness of legal learning or clearness of statement in perfect English."

Born near Grafton, West Virginia, in 1869, he was admitted to the bar at Grafton after receiving his law education at the University of Virginia. He served first as county prosecuting attorney and later as a member of the West Virginia senate, and in 1908 was appointed to the state Supreme Court of Appeals in 1907 to fill a vacancy and elected for a full term in 1908. He resigned from the bench in 1915, after having served two years as chief justice. He has lectured on law topics at the University of West Virginia, has lectured frequently elsewhere and has written extensively on legal subjects, being the author, among other things, of "American Recognition of the Roman or Civil Law." He is at present chairman of the criminal law section of the American Bar Association. In 1916 he was the Republican nominee for governor of West Virginia, and in 1917-18, when the young manhood of the country was being drafted for war service, was chairman of the district board for the northern district of West Virginia.

None of the members of the old War Minerals Relief Commission remain in office. Judge Robinson alone will make the recommendations to Secretary Fall. In advance of preparing his own opinion, he is working overtime every day familiarizing himself with the situation. He is approaching the administration of the War Minerals Relief act in the spirit of its enactment, that is, as a relief measure, and with the proper recognition of his responsibilities as an arbiter between the government and the claimants before him. The latter will undoubtedly feel that they have had a fair deal in court, even though their claims are not allowed.

### LADOO DEFENDS DOMESTIC INDUSTRY

AMERICAN TALC is equal to the best in the world. This observation was elicited from Raymond B. Ladoo, of the Bureau of Mines, who recently prepared a paper on high grade talc in general and California talc in particular.

High grade talc is found not only in California, but also in Washington, Montana, Wyoming, Arizona, New Mexico and other states. Production was heavy in California until late in 1920, in which year imports from Canada, France and Italy amounted to 21,729 tons, valued at \$442,732, and were the greatest in history. The American industry is now suffering from cheaper ocean freight rates and higher transcontinental

railroad rates and increased foreign competition caused by lower labor and freight costs abroad, the condition of foreign exchange and the absence of tariff protection.

Aside from these considerations, Mr. Ladoo says, the principal point to be considered in meeting foreign competition is the comparative quality. And in this respect American talc has been proven to equal the best in the world.

"Unfortunately," Mr. Ladoo says, "many domestic consumers have been so thoroughly imbued with the alleged superiority of imported talcs that domestic talcs have not been given a fair chance. It is even reported that unscrupulous dealers have relabeled domestic talc and sold it as Italian talc, with perfect satisfaction to the consumers. Such dishonest trade practices are probably not common, but they serve to refute the erroneous statements regarding the quality of domestic talc."

### CENSUS PETROLEUM FIGURES FOR 1919

ALTHOUGH 1921 IS HALF GONE, the United States Census Bureau is just now issuing the summary of its 1920 petroleum industry census, which itself covers the year 1919. The report consists of a detailed statement of the quantities and values of the various products manufactured and of the quantities and cost of the principal materials used during the year 1919.

The figures are based upon the returns from 318 establishments with products for the year valued at \$1,632,354,000. At the census of 1914 there were 176 establishments with products valued at \$396,361,400, an increase of \$1,235,992,000, or 312 percent.

The phenomenal increase is the result of increase in quantity production and in higher unit values. The output of gasoline in 1919 was 3,637,045,000 gallons, valued at \$679,775,500 as compared with 1,195,412,000 gallons, and \$106,140,200 in 1914, an increase of 204 percent in quantity and 540 percent in value, and in unit value from 8.8 cents to 18.7 cents. Likewise in fuel oils: the output in 1919 was 4,772,185,000 gallons, valued at \$318,082,700 as compared with 3,734,092,000 gallons and \$84,017,800 in 1914, an increase of 27.8 percent in quantity, and 277 percent in value, and in unit values from 2.25 cents to 6.7 cents; and in illuminating oils the production in 1919, 2,304,850,000 gallons valued at \$235,617,500, was an increase of 19.1 percent in quantity and 143 percent in value over that of 1914 with an increase in unit values from 5 cents to 10.2 cents.

The refineries used 357,686,000 barrels of crude petroleum (domestic 319,626,600 barrels, foreign 38,059,400 barrels) in 1919, costing \$866,265,000, as compared with 191,276,700 bbls. (185,027,479 domestic and 6,235,245 foreign) and \$249,728,000 in 1914, an increase of 87 percent in quantity and of 247 percent in cost, and an increase in unit values from \$1.31 to \$2.42 per barrel. The marketed production of crude petroleum in 1919 was 377,719,000 barrels and in 1914, 265,762,535 barrels. Thus the refinery consumption was equal to 84.6 percent of the domestic production in 1919 as compared with 69.6 percent in 1914 and 65.9 percent in 1909.

The gasoline product of the refineries does not include casing-head gasoline made at the wells except to the extent that it was purchased and used as a material (6,952,200 barrels). The ranking states, those with products in excess of \$100,000,000, are New Jersey, with 9 establishments; Texas, 38; California, 45; Pennsylvania, 53; and Oklahoma, 66.

The figures for 1919 are preliminary and subject to such change and correction as may be necessary from a further examination of the original reports.

# A BUG'S EYE VIEW OF WASHINGTON

By IRA L. SMITH

**M**ONEY not only forms the Root of all evil but the Grounds for six-fifths of our Marriages and Inspiration for about an equal percentage of the Talk that clutters up the air in Washington as we wabble to press.

Tax and Tariff.

The Money-bag Twins.

The biggest untamed question marks ever Exhibited under One Tent.

It is only natural that they should be the Powers behind the Tongue in these days when everybody is agog as to where the Money is to be gotten with which to Square Things with the butcher, the baker, and the rest of the gang, Nationally speaking.

And what could be more Logical than that the vast Army of Words spouted out in this connection should be Mobilized in the nation's capital?

Senators and Representatives strain their Reserve Stocks of verbs, semi-colons, and what-nots in Expounding and Propounding upon the manner in which we of the common herd are to be taxed and tariffed.

Hordes of effusively interested Spectators from out in the Provinces have been clogging Pennsylvania Avenue for weeks in their efforts to get up to the Capitol that they might slip the Solons a few ear-fulls.

Hauling their feet out from under Mahogany Desks, the country over, they put on their Sunday shoes and knowing expressions and railroad into the Political Hub of the Nation to contradict each other fore and aft.

For weeks, the Sales Tax has been the Bone of Contention into which these Dogs of Dough have been sinking their teeth.

Up steps one tribesman who sagely scratches his ear and then proceeds to explain to the Brave Senators, living and dead, who surround the Committee Table, that the Sales Tax will send the cost of safety pins higher than just about anything.

He foams at the mouth, swears at his mother-in-law, ties slip-knots in his tongue and then, after seventeen short hours of testifying, is carried kicking to the place where brains refuse to be worried by thoughts. Hardly has the roof ceased to quiver under his Acoustic Assault before the same thing, with variations, begins once more at the beginning.

A gentleman from the other end of the land gets a toe hold in the plush carpet and works himself up into a Height of Frenzied Fervor that would do credit to a whirling dervish spinning 'round on the Sahara. Alternately tearing his hair out of its parking place by the roots and gazing in supplication at members of the Committee, he hails the Sales Tax as the Savior of the Universe, the Supreme Boon of mankind and the Only Chance of putting Monkey Glands into the nation's industry.

These two are followed by numberless Hosts of their same ilk and then the janitor brings in a wheelbarrow and carts out the Weary Witnesses to have their Jaws oiled up for the next day.

But don't for the moment get it into your young head that quiet prevails just because the Committee has to get its collective Sleep and Eat once in a while. That's when the Fun begins out in the Side-shows along the Corridors of the Capitol and in the hotel Lobbies downtown.

Men who have never been formally Introduced to

each other get in Fist Fights simply because they are of opposite Financial Faiths. Others who have not Spoken to each other since the Civil War share Embraces when they discover that they Agree on the way in which the Treasury ought to be brought to the bulging point.

Wives are Forgotten as Men gather in utter disregard of their lives and tell each other what Conclusive Fools they are because they can't agree. Even thoughts of Sweethearts are placed in the dusty attics of young men's brains, which, for the time being, are devoted to solution of the Great Queries.

And so it goes.

Arguments are thicker than dogs in Constantinople.

If you can't talk you might as well move out of the Town. As a matter of fact and record, you'd better. Because you'll find the roots of pansies nestling on your chest if you don't have a Defense against being Gabbed into the Next World.

If the national and international Questions that are sitting cross-wise in Washington's mouth are not settled quicker than you or I can say, "Sea sells she shells by the she shore," there won't be any need of our scientists figuring out how we are going to communicate with a bunch of long-eared owls or whatever is up on Mars. If there is anything up there that's brainless enough to listen to an argument, the rumpus will do its part.

Right now the Boys who used to sell magazines on the trains coming into Washington have switched their stocks to well-padded ear muffs and are making money faster than a Profiteer.

Folks arriving in the National Capital to shake hands with and get good jobs out of their Representatives in Congress find astonishing conditions prevailing.

The Dictionary is among the Ten Best Sellers, with "How to Argue at Length," leading the list.

Doctors are going through more Motions than one-armed deaf men making love. Trying to repair all the fractured Ear-Drums is a stiff task.

Children are getting so they begin to talk at the soft-boiled age of three days. Those that can't are tossed into the Potomac.

Dogs and cats are going through all the motions of a Joint Debate.

Man and Woman got Married the other day. She can't Argue. He has grounds for Divorce in the Capital.

Whispers ran out of Style several weeks ago.

Glaziers are getting wealthy as folks hurl Epithets through windows.

Telephone company is going out of business: people just shout without going to the trouble of taking down the receiver.

More Words to the square inch in Washington taken as a whole than there are in the old ladies' home.

Detectives have quit wearing rubber heels. Bedlam of discussion prevents anybody hearing them anyway.

Burglars are having one Field Day after another. Blow a bank safe and folks think an Orator has just caught his breath by the forelock.

Hospitals are full of people sent there for investigation when found with their mouths closed.

While clouds of Smoke rise from the Industrial Furnaces of other hamlets, billows of Tepid Air take sneaks for themselves toward the skies above Washington.

Words without end.

### ORIGIN OF PETROLEUM NO LONGER A MYSTERY

ONE OF THE TWO questions which have mystified the world for ages has been answered. An Arkansas man has solved the problem of the origin of petroleum. The other problem, which still staggers the wisest intellects, is, "How old is Ann."

According to the Arkansas investigator, the deep subsurface of the Gulf of Mexico is a great petroleum reservoir whose supply is everlastingly added to by the juice of fishes, said juice being compressed by the weighty waters of the deep, purified by the sands of time and filtered through the rocks of ages. A super-serious excerpt from the report follows:

"Petroleum is a product derived from vegetable and animal fats. All the vegetable and animal fats are used on the land until they serve the purpose they were intended to serve, but sooner or later they find their way to the little fish of the branches.

"The filth of the large cities, the carcasses found dead in the forest, in fact, all the refuse of the earth is washed down into the little streams and consumed by the little fish. And in time they are eaten by the larger fish, and in time they are eaten by the porpoises, sharks, whales, etc., and in time the whales and such things are compassed about by the large parasites, generally called octopuses.

"After surrounding a whale with their numerous feelers they will retire to the bottom of the great waters. Sometimes it takes as long as twelve months to finally consume, by absorption, their victim. But everything has an end, and so do these great parasites. At their end and when their life is no more, and at a depth of about four thousand feet, they being a conservation of about ninety percent fat, and it does not take long to become pus or oil.

"It is a fact that at a depth of about one thousand feet or more, in salt water, nothing rises to the surface, and the habitation of these mighty parasites being the bottom of the mighty ocean, naturally this rendered oil could not rise to the surface, owing to the salt of the salt water. Owing to the fact that the moon, by some mysterious force, controls the motion of the water, at the bottom of the deep, never ceasing, everlasting, finally puts the oil in motion, and being so pushed it finds its way out along the crevices of the rock, and along with it the salt water.

"If this theory of the manufacture of oil is not correct, then who is the man who can explain the presence of salt water in all oil fields?

"It is continually being pushed and pushed out into these crevices, and after it is far enough away from the force of the mighty ocean, it is then carried by capillary attraction to the different parts of the earth. Owing to the fact that oil travels by capillary attraction, it would be impossible to hold it in one location except by an especially prepared receptacle, having a sufficient covering or cap rock, as it were, to keep it in the receptacle.

"In the formation of our earth's surface we find bodies of sand that are formed between two large bodies of rock. This sand forms a conductor and this oil will travel as far as five thousand miles from the seat of its manufacture.

"So with the foregoing, if it were possible for us to walk about in the bed of the Gulf of Mexico, we could see these forms of hard fossiliferous limestone projecting out, forming what is known as a blanket formation, just as we can look around the mountains and see these great beds of limestone extending out and we can see the sand stones and the soft matter underneath them wasting away by the action of the water. Then we can readily see that at the bottom of the mighty waters it is easy enough for the pressure of the great tide to push this oil out underneath the folds of the sand that lay immediately underneath these anticlinal folds and up these beds of sand that were deposited by the streams of the pre-cretaceous age."

The author, in "summing up the conclusion" of his report, recommended that drilling be done "on a certain anticlinal, south of Cave City," which he had selected,

his stated reason for the recommendation being that "I see a direct entrance to the great basin at the depth before mentioned where petroleum could come into this large receptacle by capillary attraction, and I see sufficient surrounding of the sand, a cretaceous formation, to hold this body of petroleum in the receptacle with this fossiliferous limestone as a cap rock immediately above this receptacle, at a depth of something like eighteen hundred feet."

### FAITH IN "DIVINING RODS" STILL FOUND IN THE LAND

THE LONGING IN MEN'S HEARTS for gold, pathetic at times, has never been brought out more clearly than in a number of letters which have been received by the United States Bureau of Mines recently, containing requests for "divining rods" or "dipping needles" with which to search for hidden treasures.

So numerous have been the requests that the bureau has found it necessary to print a form letter, hinting at the conclusion that the "needles" are not all that the eager treasure seekers feel they are in the way of indicators of wealth.

One letter, received from a man in a small town of northern Alabama, is typical. Assuring the government that he can enrich it at the rate of one million dollars a year, he writes:

"I want to do government work for Washington, D. C. I want a money needle. I can find money in the ground here and I want you to send me the best needle you've got so I can send you the money to be worked over. I will send you \$1,000,000 in a year's time."

Captain Kidd's treasure features about one-fourth of the letters received on the subject, all of which are sent to the bureau regardless of the government agencies to which they are addressed. Others tell of relatives who died, leaving unknown the places where they buried their riches.

The history of "divining rods" is traceable far back into past centuries. From time to time books have been issued purporting to tell of marvelous "finds" resulting from use of the "needles." Modern mining science, however, is inclined to minimize these reports, as is indicated in the following extracts from the bureau's form letter:

"This office has received many inquiries regarding divining rods, mineral rods, etc., with reference to their adaptability for locating buried treasure, gold and silver ores, petroleum, etc. You are advised that the extravagant claims put forth by people who sell such contrivances have never been substantiated.

"Water Supply Paper 416, recently published by the U. S. Geological Survey, traces the history of the divining rod back to the sixteenth century, and summarizes present knowledge of it.

"Special instruments, such as the dip needle, the magnetometer, and the dial compass, have been successfully used in prospecting for magnetic iron ores in this and other countries.

"A working knowledge of geology and of the conditions under which the ores are likely to occur are of the utmost value in prospecting for minerals. The question of locating buried treasure, however, is one on which it is impossible to give helpful advice of any kind."



## RAILROADS NOT IN SYMPATHY WITH RATE REDUCTION PROPOSALS

By C. H. FARRELL

THE ATTITUDE of the carriers toward any general reduction in rates has become quite evident during the last few weeks, both through the testimony before the Senate committee which is investigating the railroad situation and particularly in the reply made to various organizations which held conferences with traffic representatives of the carriers in Washington and asked for reductions in the rates on sand, gravel, crushed stone, chert, slag, asphalt, tar, paving brick, cement, building brick, tile, terra cotta, talc, various kinds of lumber and other building materials. One group of shippers in these conferences asked that the advances established under General Order No. 28 be eliminated and new rates made by adding the percentage increase authorized by the commission last summer to the rates in force prior to General Order No. 28. Another group of the shippers asked that the advance authorized by the commission be eliminated.

The carriers in their reply to the shippers call attention to the fact that the tonnage directly affected by these requests approximates 25 percent of the total tonnage of the railways and that there are many articles analogous to those referred to upon which the demand and equity of reduced rates would be equally as pressing and that it would be next to impossible to prevent such articles being included in any reductions which might be authorized. The carriers also believe that the conferences developed that the possibility of an increase in the tonnage under reduced rates was more or less conjectural and that reductions in the selling prices of some of the commodities by amounts exceeding the present total freight charges had failed to create any excess tonnage. The hesitancy of many dealers to place orders in the hope that rates might be reduced was also considered as a reason for the low tonnage.

The carriers insist that they are anxious to work toward a lower level of rates, but that such a result cannot be accomplished

until there is a reduction in operating costs as well as an increase in business which will restore the proper relation of net to gross earnings. The statement of the carriers is to the effect that no industry of the country is in more acute distress than the railroads, that many are not earning their operating expenses and taxes, that many more are not earning interest charges, and that no group is earning anything approximating the return contemplated by the Transportation Act. Referring to the recent reduction in wages authorized by the Labor Board the carriers contend that the benefits of that reduction, when it becomes effective, will be more than offset by the decreased volume of business, which is attributed to worldwide conditions. The carriers conclude with the statement that no general reduction can be hoped for until there is something substantial in the prediction that the volume of traffic would increase and when such increase could be expected.

Meanwhile, the work of eliminating inequalities which exist in the rates because of percentage increases will be continued upon application to the traffic managers of the interested railroads. The only general concession so far made is in the rates on fruits and vegetables from the Pacific Coast, where, after numerous conferences, a reduced basis of rates has been agreed to.

**EARNINGS.**—While the results for the month of April are not considered promising by the railroads, inasmuch as the net operating income totaled \$1,494,000 less than it was in March, and produced an annual rate of return of only 2.18 percent on the tentative valuation fixed for rate-making purposes by the commission as compared with 2.30 percent in March, and while the operating income fell short approximately 64 percent of the amount contemplated by the Transportation Act, there is at least one bright spot in that the carriers continued to make reductions in their operating expenses. The ratio of operating expenses to revenues was 86.74 percent compared with

87.19 percent in March, and there were reductions in all districts compared with April, 1920. The increase in revenues over April, 1920, was 7.7 percent, and the decrease in operating expenses 6.2 percent, leaving an operating income of \$29,201,000 compared with an operating deficit of \$23,767,000 in April of last year, which month, it must be remembered, was taken up by the switchmen's outlaw strikes and is not of much value for comparative purposes.

During the eight months since the guaranty of the government to the carriers expired there has been a net operating income of \$279,008,000, or an annual rate of return of 2.41 percent on the tentative valuation fixed by the commission. The carriers estimate that this sum is \$414,253,000 under the amount contemplated by the Transportation Act. Taking the three main districts we find an increase in each instance in the operating revenues compared with April last year and a decrease in operating expenses, producing an increase in operating income which is quite substantial compared with last year because of the strikes referred to above.

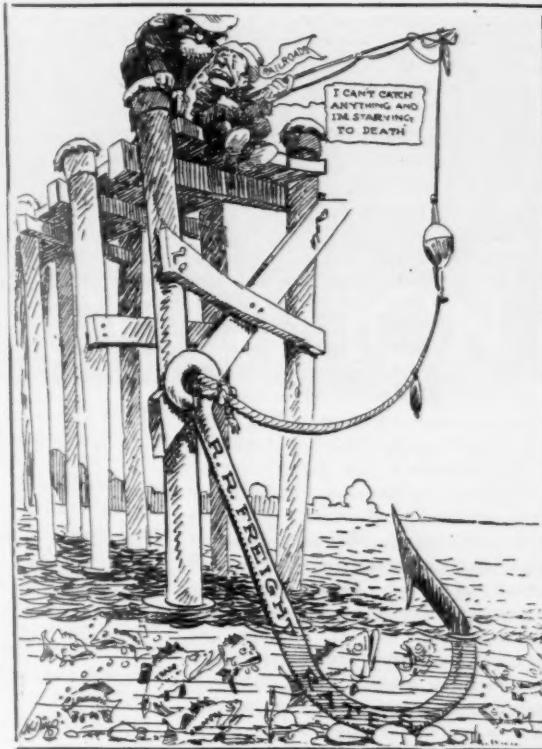
**CAR LOADING.**—There is a slight indication of increased tonnage disclosed by the figures of the car service division of the American Railway Association for the week ended May 28, in that 18,907 cars more were loaded with revenue freight than during the previous week, when there was an increase of 18,172 over the week before that. In both weeks, however, there were fewer cars loaded than in the corresponding weeks of 1920. During the week ended May 28 the principal increases were shown in the loading of grain and grain products and coal. In fact, the former commodity was the only one to show an increase over the corresponding week last year. The increases are quite general and apply in all districts.

**CAR SUPPLY.**—On May 31 the average number of cars of all kinds in excess of current freight requirements was 394,040, or



—Philadelphia Retail Public Ledger

IF SOME ONE WOULD ONLY CLEAR THE ROAD



—Darling, in Washington Herald

MIGHT TRY PUTTING ON A SMALLER HOOK

28,783 below what it was on May 23. Surplus box cars totaled 155,040, which was a reduction of 13,232 cars in eight days. Stimulation of coal movement through the reopening of lake navigation also resulted in a reduction in the number of surplus coal cars, the total on May 31 being 11,340 less than on May 23.

**RAILROAD INQUIRY.**—The inquiry into the general railroad situation which has been in progress for some time before the Senate Committee on Interstate Commerce was resumed on June 14 after a two weeks' recess, E. T. Whiter, chairman of the Conference Committee of Managers being the first witness. In commenting upon the rules governing maintenance of way employees Mr. Whiter stated that an employee must be paid a minimum of eight hours even though he works only a few minutes. If the employee is not put to work upon reporting because of conditions which make working impossible he is paid for five hours' time, but if he is put to work and then stopped he must be paid for eight hours even though he has worked but five minutes. For each fire built or furnace prepared a blacksmith helper is allowed thirty minutes' straight time, even though he merely lights a gas or oil fire, fifteen or more of which can be started within thirty minutes. As another instance of how the national agreements work Mr. Whiter called attention to the employment of three attendants at a small water pumping station in Baldwin, Michigan, where there is a low-powered dynamo used to generate power to operate a mechanical coal dock and furnish lights

for the station as well as to some of the local residents, from which the gross receipts were only \$83.34 a month. Previous to the agreements the three men were classed as pumpers without previous experience and their duties consisted of oiling the machinery and starting and stopping the water wheels. Under the national agreements, however, they were classified as generator attendants and awarded back pay totaling more than eight thousand dollars. This produced an annual cost of operating this pumping station of \$6,424 a year, which is more than the value of the water pumped and the current generated, and does not include the cost of making repairs to the machinery, which must be done by machinists sent out from headquarters.

Three laborers employed at from 37 to 48½ cents an hour were sent to cut up scrapped material through the use of acetylene torches. The national agreements required their reclassification as carmen and made necessary the payment of nearly \$6,500 in back pay.

The agreements produce a waste of service of skilled men in that they are required to do much work formerly done by helpers, who, if they are assigned to the work, must be given the skilled rate although there is no skill required in the performance. As instances of this class of work Mr. Whiter cited the following: dismantling wood and steel freight cars, operating punches and shears, operating hand forge, freight car painting, using sand blast machines, and removing paint and rubbing down passenger equipment. On cross examination Mr.

Whiter did not hold out much promise of any early agreement between the carriers and the unions as to the national agreements, and stated that he is of the belief that the relief intended by the Labor Board will be lacking unless there is a change in the attitude of the federal shop crafts because the carriers, in defense of themselves and the public, must resist any further attempts to continue in effect the national agreements.

L. E. Wetling, manager of the bureau of statistics of the western lines, was the next witness, and he dwelt upon the necessity of making up for the lack of adequate maintenance during the period of federal control in order to restore the railroads to a condition where they could meet increased transportation demands as a substantial reason for the increased cost in railroad operations in 1920 compared with 1919.

Senator Cummins called attention to the substantial increase in the cost of maintenance during the six months when the government was paying the carriers a guaranty, and Mr. Wetling attributed the necessity of this expense to the condition of the carriers' property immediately after the termination of federal control. The purpose of Senator Cummins and Mr. Wetling was to show that the government would not be required to pay anything because of excessive expenditures for maintenance made during the guaranty period.

Continuing, Mr. Wetling contended that the increased maintenance was caused by two factors: first, the condition of the carriers upon the termination of federal control; and second, the restrictions placed upon

maintenance expenses during 1919 by the director general. In considering these increased expenses Mr. Wetling also contended that due consideration must be given to the labor award of July, 1920, retroactive to May 1 of that year, as well as the large increases brought about by the national agreements, none of which was in effect during the corresponding period of 1919. The increased cost of material over 1919 was also referred to.

The large decrease in maintenance expenditures shortly after the guaranty period was attributed to the general business depression which started at that time, the realization that the increased rates allowed by the commission would not produce the revenue expected, the refusal of the Secretary of the Treasury to honor certificates of partial payment for the guaranty period, the attitude of the Railroad Administration toward advances, all of which left the carriers in such condition that they could not continue the maintenance which they felt necessary and desired. The fact that during the guaranty period they did spend large sums on maintenance, Mr. Wetling contended, had no bearing upon the fact that they were being paid by the government, because the Transportation Act specifically provides a limit on the amounts to be allowed for expenditures and constitutes public notice to the carriers that they will have to bear any expenditures in excess of such limit.

Mr. Wetling classed the increase in the amounts expended for maintenance purposes in 1920 over 1919 as not abnormal or excessive, and stated that although the cost of maintenance in 1920 was much greater, owing to the prices of labor and materials, the carriers actually accomplished less maintenance work in that year than they averaged during the three years immediately previous to federal control.

At this point Senator Cummins made the prediction that the cost to the government for the twenty-six months of federal control would reach \$1,500,000,000 and that the public will not get a fair idea of the cost until Congress is asked to appropriate the necessary funds.

Concluding his testimony, Mr. Wetling stated that during 1920 the carriers suffered a deficit of two-tenths of a cent for each mile run by a train, that the average revenue for each mile was \$5.065 while the average expenses and taxes were \$5.067. Taking the last four months of the year, when the increased rates were in effect, the average revenue per train mile was \$5.883 while the average expenses and taxes were \$5.328, leaving a net railway operating income per train mile of 55.5 cents. During 1916 the average net operating income per train mile was 84.9 cents. During 1920 the carriers enjoyed the largest operating revenues in their history and the smallest net operating income. Of every dollar taken in during that year he stated that 59.9 cents was expended on labor, 10.9 cents for fuel for locomotives, 17.3 cents for material, supplies

and miscellaneous, and 10.9 cents for loss and damage, injuries to persons, insurance, depreciation and retirements, and taxes, leaving only 1 percent for return on investment. Commenting upon the efficiency of private operation, Mr. Wetling filed exhibits showing that while the carriers were increasing the number of miles in the movement of each car and each locomotive and were bringing about a heavier loading per car, the efficiency of the individual employee was declining.

#### DO THE RAILROADS SERVE THE PEOPLE—OR THE UNIONS?

THAT it is next to impossible for the railroads to fulfill their proper function, when the unions are continually grasping for more and more power, demanding less and less work, and making operation more expensive all the time, is the assertion made by John T. Lovett, general manager of the Michigan Manufacturers' Association. Mr. Lovett's observations made an impression upon the *West Virginia Mining News*, which added some comments of its own which are of decidedly more than ordinary interest.

Mr. Lovett said, in part:

"The railroads of the United States are in the process of being throttled by union labor and placed in a situation where a reduction of freight rates will be impossible."

The *West Virginia Mining News* commented upon Mr. Lovett's remarks as follows:

"One of the strongest tendencies in all organizations of men is to extend activities until everything is brought under the control of the heads of the organizations. Once started on this road, the members and officers see in each stage of their progress fresh proofs of a power which they have only to reach forth and seize, to make them masters of the world. This is all the more evident among organizations of workingmen. Being unacquainted with the history of governments—with the ebb and tide of human affairs, they do not realize that power is, perhaps, the most illusory thing in the world. They do not know that with the creation of every movement which aims at absolute power, a reflex motion is set going; and that their own aims at complete domination over human life and its interests will, presently, be crushed under a juggernaut of their own making.

"The pathetic side of it is, that the rank and file of members of such organizations—those whose earnings go into dues and assessments for the use of the officers, do not themselves have any such ambitions. On joining they thought they were benefiting themselves and their families, and had no thought of injuring any innocent persons. But, as time goes on, they find that, little by little, all has changed. Today they come up to the place where the beautiful image of yesterday seemed to stand, but it has moved on—has faded, and still all they have left is their jobs. Their leaders—the officers of the unions, sit in cool white offices, issuing strike orders and ultimatums; but all that is left to them is to work—and pay the assessments. So far as they are concerned or their families, there is at present no advantage to them in the unions or to anyone else except to the union labor leaders themselves.

"Meanwhile, the latter, in order to hold their sway over the union membership, are constantly clamoring for increased pay and shorter hours with one voice, and for more power for themselves in another. They have gone on in this way until, at last, the reflex motion is in full swing. Piling up wages on the railroads has piled on freight and passenger rates, and the dues paying union member has now come up to—not a beautiful vision of a light job and big pay, but no job at all. His leaders have led him out onto a desert where only a mirage mocks his thirst.

"Let those who see the word of Truth pass it along."

#### RAILWAY ENGINEER'S "WAGE" EXCEEDS GOVERNOR'S

POINTED REMARKS about "living wages" received by railroad employees were made before the United States Railroad Labor Board at a hearing in Chicago during the second week of last month. The story was so interesting that the full account carried in some of the newspapers would suffer by condensation, and it is herewith given in full:

The United States Railroad Labor Board was holding a somnolent session today when a union leader, protesting against pending wage cuts, murmured something about the employees not receiving a "living wage."

The phrase shot Fitzgerald Hall, counsel for the Nashville, Chattanooga and St. Louis railroad, out of his chair so abruptly that there was a general impression that he had sat on a tack.

"Living wage?" he echoed. "Let me tell you about the appalling conditions under which our employees exist:

"Our railroad has a total of 1,200 miles of track. Most of it is branch lines. The engineers on those branch lines make more money than the governor of Tennessee, or the judges of our supreme court.

"The engineer on the Tullahoma accommodation last year made \$4,371.92. That is \$371.92 more than the governor of Tennessee. Isn't that so, governor?"

Former Gov. Hooper, of Tennessee, now a member of the railroad board, nodded affirmatively.

"Many of our Presbyterian ministers, paid \$1,600 annually, get less than one-half of the wages of yardmaster and passenger agents. High school principals in Nashville, Tenn., get \$250 a month, compared to \$305 a month for yardmasters.

"High school teachers at Paducah, Ky., Huntsville, Va., and Chattanooga, Tenn., receive \$125 to \$148 a month, while blacksmiths on our road get \$185.51 and switchmen \$188.56.

"Full professors at Vanderbilt University receive \$3,750 a year. At the University of Tennessee they get \$2,684 and at Georgia Tech \$3,600. Why our conductor on our Rome branch, 18 miles long, gets \$5,735.88 a year and the baggagemen make more than assistant professors and instructors.

"The engineer on the Rome branch gets \$5,997.04 and the supreme judges of Tennessee get \$5,500, while the negro flagmen and porters on the Columbia-Decherd branch get \$3,146.40—\$146.40 more than the district attorney of Tennessee."

Solicitor Hall, before he concluded, asked the board to increase the pending 12 percent wage cut to 20 percent and thus to wipe out the \$600,000,000 increase granted employees a year ago July.



# NATIONAL LEGISLATION

## GOVERNMENTAL REGULATION OVERSHADOWS ALL OTHER QUESTIONS

**G**OVERNMENTAL REGULATION of business has been the storm-center in Congress during the month. The passage of the Packer's Bill called for much oratory and heated argument. It was, however, surprising to note that several members of Congress, who talked so vehemently against government regulation and pointed out so forcefully how the passage of the bill would be contrary to the administration's avowed purpose, when the vote came voted for and not against the regulation of the packers.

As we go to press the fire-works in connection with the Frelinghuysen coal bills is just starting. On June 20 Senator Frelinghuysen of New Jersey opened the debate on his seasonal coal rate bill and the bill for the stabilization of the coal industry. He declared that existing conditions in the industry are uneconomic and that it is his desire to do something constructive to remedy present conditions. In his view the railroad question and the coal problem are the most vital ones confronting the public and the distribution and production of coal at a reasonable price is essential to the life and energy of the nation. The Senator insisted that his proposed legislation did not control or regulate the coal business but was designed to compel full information and publication of all facts regarding the production and distribution of coal. Discussion on the coal bill has been delayed somewhat by the right of way of other legislation.

All of the coal associations have presented their opposition to these measures. It is well understood that the bills for the regulation of the coal industry are but an entering wedge and, on June 22, it was definitely learned that Senator Kenyon of Iowa has nearly completed the preparation of a bill which he will introduce in the Senate for the government control of the steel industry.

In Public Opinion, a department in another part of this month's JOURNAL, will be found expressions from a number of senators in regard to governmental control. The lines are tightly drawn between pro-

ponents and exponents of government regulation of industry and, while many senators publicly oppose this legislation, it is understood that they cannot conscientiously resist the appeals of the public, which is urging government regulation.

The committee having in charge the tariff schedule has been working diligently and it is anticipated that the tariff bill will be ready for introduction some time during July. It is understood that excellent progress is being made and that the bill will carry substantial relief to mineral producers. The Senate Finance Committee has been thoroughly engrossed in the drafting of the 1921 revenue law, but it is understood that it will be several weeks before the committee will be in a position to report their bill.

On June 13 the Senate passed Resolution 32 by Senator Bursum of New Mexico, which suspends the annual assessment work on mining claims for the year 1921 and at the same time changes the date required for doing assessment work from the calendar to the fiscal year. However, the House Committee on Mines and Mining on June 18, by an almost unanimous vote, decided not to report to the House the bill as passed by the Senate.

With the appointment of Judge Ira E. Robinson, of West Virginia, as War Minerals Relief Commissioner, it is understood that a general review of all war mineral claims will be made and that an immediate report will be submitted to the Secretary of the Interior. The Interior Department believes it is possible to afford great relief to many bona fide claimants without additional legislation, although the Senate on June 17 passed the Shortridge Bill, which liberalizes the original War Minerals Relief Act. This is S 843, reviewed in our May issue.

Probably the most important bill to the whole mining industry is that introduced by Senator Nicholson of Colorado, providing for a Department of Mines and Mining. This bill is reviewed in the resume which begins on the next page.

A joint committee has been appointed by the House of Representatives to investigate agricultural conditions and prices and their relation to the conditions and prices in other industries.

A resolution which called for considerable opposition and much debate was that which provided for an investigation of the West Virginia mine strike situation. A great many senators were strenuously opposed to the resolution, particularly because it interfered with state rights.

From the Patents Committee Senator Stanley of Kentucky reported the bill which is designed to prevent foreigners from securing United States patents for the sole purpose of protecting them against American manufacture of the same subject matter.

We have with us continually new "blue sky" legislation, the latest being a bill introduced by Representative Denison, of Illinois, for the regulation, sale and distribution of securities, through the mails and other interstate agencies.

Senator Bursum of New Mexico introduced a bill to protect locators of oil and gas lands, who had not made discovery prior to the leasing law, by extending the time for making such discovery.

The fate of the bill introduced by Mr. McFadden of Pennsylvania to preserve the gold standard rests on the decision of the Treasury Department. The bill involves the Treasury Department, both as to policy and administration to such an extent that Chairman Fordney of the House Ways and Means Committee, before which committee the measure is pending, has referred it to Secretary Mellon.

Recommendation has been made to the Senate Finance Committee, which is considering the revenue measure, that gold mining operations be exempt from taxation.

It is understood that one of the principal items President Harding has in view in regard to Alaska is the formulation of a plan whereby the work of all governmental agencies dealing with the territory will be

coordinated. It is not anticipated that this bill will come up for discussion during the extra session.

The bill for the creation of a Department of Public Works has been reintroduced in the Senate by Senator McCormick of Illinois. The bill is similar with that introduced in the last session of Congress. The following bills of interest to the mining industry have been introduced:

#### COAL

*H. R. 7081.* Introduced by Mr. LINTHICUM; referred to the Committee on Interstate and Foreign Commerce. (*Seasonal rates.*) The bill amends Section 15 A of the Interstate Commerce Act by adding a new paragraph, which is as follows:

In order to promote continuous operation of coal mines, steady employment of coal miners, and economical use of facilities for distribution of coal, the commission is hereby authorized to initiate, establish, approve, or adjust rates for the transportation of coal during specified seasons or periods which shall be greater or less than the rates for other specified seasons or periods but which in the judgment of the commission will yield as nearly as may be the same annual revenue for like movement as rates without seasonal variation, to be maintained by carriers as a whole or as a whole in each of such coal rate groups or territories as the commission may from time to time designate for that purpose, or by such carrier or carriers as the commission may designate. The term "coal" shall include anthracite and bituminous coal, lignite, coke, including petroleum coke, and briquettes and boulets made from anthracite and bituminous coal and from coke. Whenever the commission is of opinion that an emergency affecting the transportation of coal and requiring immediate action exists in any section of the country, the commission shall have, and is hereby given, authority, either upon complaint or upon its own initiative without complaint, at once if it so orders without answer or other formal pleading by the interested carrier or carriers, to suspend the operation of any schedule in so far as it affects coal rates, whether seasonal or not, upon filing with such schedule and delivering to the carrier or carriers affected thereby a statement in writing of its reasons for such suspension and defer the use of such coal rates, and to initiate in lieu thereof such reasonable rates for the transportation of coal as in its judgment the emergency may require. The commission shall thereupon enter upon a hearing concerning the lawfulness of the schedule, the operation of which had been so suspended, and the proceedings thereon shall be the same as nearly as may be as those provided in paragraph (7) of section 15. Nothing contained in this paragraph shall be construed as repealing, modifying, or denying any other authority heretofore conferred upon the commission.

*S. J. Res. 73.* Introduced by Mr. WADSWORTH; referred to the Committee on Military affairs. (*Government fuel.*) This resolution provides that hereafter when, in the opinion of the Secretary of War, it is in the interest of the United States so to do, he is authorized to enter into contracts and to incur obligations for fuel in sufficient quantities to meet the requirements for one year without regard to the current fiscal year, and payments for supplies delivered under such contracts may be made from funds appropriated for the fiscal year in which the contract is made or from funds appropriated or which may be appropriated for such supplies for the ensuing fiscal year.

*H. R. 7106.* Introduced by Mr. LINTHICUM; referred to the Committee on Interstate and Foreign Commerce. (*Coal Stabilization.*) The act is to be known as the Coal Industry Stabilization Act, which includes anthracite, semi-anthracite, bituminous, and sub-bituminous coal, lignite, and coke. The power of carrying out the functions of the bill is vested with the Secretary of the Interior, who shall from time to time investigate the tonnage of coal produced and sold in commerce including railway fuel; stocks of coal on hand in any section of the country and the consumption requirements in such sections; the contract and prevailing market prices received or paid for coal by persons engaged or interested in the mining, sale, storage, or distribution of coal. The Secretary is authorized to require, secure and collect such information currently or at such time or times as in his judgment may be necessary in the public interest. If the President at any time shall deem it necessary the Secretary, under his direction, shall investigate the costs and profits in connection with the mining, sale, storage, and distribution of coal. The information and data furnished is limited in its use to the purposes of the act. The Secretary shall also make investigations as to wages, working conditions, and practices, terms of employment and the living expenses of miners and other workmen employed in mines, washeries, coking plants, and other plants, and he shall to the extent that he deems proper in the public interest place at the disposal of any private or public board, commission, or other group engaged in the arbitration, conciliation, or settlement of any labor dispute arising in any mine from which coal is shipped in commerce, all data and information in the files of his office relating to the matter in controversy. The Secretary shall investigate the practicability of a statutory zoning system; the desirability and practicability of the purchase by one central agency of all coal for the use of the Federal Government; the methods and processes for the storage, inspection, sampling, analysis, purchase, classification, and economic utilization of coal and shall conduct such experiments and researches as he may find advisable. He shall investigate the desirability and practicability of prescribing standards for various kinds and

grades of coal prepared for the market. Upon the request of the Secretary each operator, dealer, or other person, and each person who consumes coal in quantities in excess of one hundred tons annually, and each common carrier engaged in the transportation of coal, shall furnish the information required by the provisions of this act. Failure to comply with this provision is punishable by a fine of not more than \$1,000 or imprisonment for six months or both. For the sole purpose of securing information and data required the Secretary is authorized at reasonable times to have access to and the right to examine mines, washeries, yards, docks, equipment and other places of business of any operator or dealer and may examine the books, papers, records, accounts, documents, or correspondence of any operator, dealer, etc.

*S. 2003.* Introduced by Mr. SUTHERLAND; referred to the Committee on Interstate Commerce. (*Amending Commerce Act.*) The bill provides that subdivision 15 of section 1 of the act, known as the Act to Regulate Commerce, approved February 4, 1887, as amended, and further amended by the act known as the Transportation Act of 1920, approved February 28, 1920, be, and the same is hereby, amended by adding at the end of said subdivision the following: "Provided, that nothing contained in the foregoing subdivisions shall authorize the commission at any time to suspend, modify, cancel, alter, or amend the provisions of subdivision 12 of this section which require equal proportionate distribution of cars to coal mines.

*H. Res. 94.* Introduced by Mr. MACGREGOR; referred to the Committee on Judiciary. (*Anthracite tax.*) The resolution reads as follows: Whereas the state of Pennsylvania has recently enacted legislation placing a tax of 1½ percent ad valorem upon anthracite coal mined within the state; and the bulk of anthracite coal used by the people of the United States is mined within the State of Pennsylvania; and whereas the imposition of said tax will furnish a basis for a further increase in the already onerous price of anthracite coal: Therefore be it resolved, that the Attorney General of the United States be directed to take such steps as may be necessary to nullify such legislation if in his opinion the Constitution of the United States has been violated thereby.

*H. R. 6563.* Introduced by Mr. MACGREGOR; referred to the Committee on Judiciary. (*Transportation of Coal.*) The bill provides that it shall be unlawful for any person, firm, or corporation to transport, or offer for transportation, from one state or territory of the United States or the District of Columbia to any other state or territory of the United States or the District of Columbia, coal upon which any tax has been paid or imposed, or intended to be paid or imposed, in any form by the state or terri-

## TOTAL BILLS INTRODUCED SIXTY-SEVENTH CONGRESS TO JUNE 23, 1921, 9,571

## COAL:

H.R. 7081: Mr. Linthicum (Seasonal Coal Rates)  
 H.R. 7106: Mr. Linthicum (Coal Stabilization)  
 H.R. 6563: Mr. MacGregor (Transportation of Coal)  
 H.Res. 94: Mr. MacGregor (Anthracite Tax)  
 S.J.Res. 73: Mr. Wadsworth (Government Fuel)  
 S. 2003: Mr. Sutherland (Distribution coal cars)

## REVENUE:

H.J.Res. 124: Mr. Longworth (Safeguard Revenue)  
 H.R. 6566: Mr. Rosenbloom (Personal Income Tax Exemption)  
 H.R. 6806: Mr. Shreve (Tax on Insurance Policies)  
 H.R. 6773: Mr. Keller (Excise Tax Land Holdings)  
 H.R. 6768: Mr. Keller (Net Estate Tax)  
 H.R. 6767: Mr. Keller (Abolishing war profits and corporation income tax)  
 H.R. 6769: Mr. Keller (Earned income and surtax)  
 S. 1871: Mr. Wadsworth (Amending 1918 Act)  
 S. 1903: Mr. King (Delinquent taxes)  
 S. 1942: Mr. Jones (Exemption merchant marine)  
 S. 2007: Mr. King (Exemption gold mining)

## ANNUAL ASSESSMENT:

H.R. 4813: Mr. Hayden (Calendar to Fiscal Year)  
 S.J.Res. 32: Mr. Bursum (Exemption 1921)  
 S. 1901: Mr. King (Exemption 1921-22)

## GOVERNMENT DEPARTMENTS:

S. 1957: Mr. Nicholson (Mines)  
 S. 1896: Mr. McCormick (Public Works and Lands)  
 S. 2089: Mr. Calder (Waste Commission)  
 H.R. 6378: Mr. McDuffie (Conservation)

## WAR MINERALS:

H.R. 6510: Mr. Kahn (Liberalizing Original Act)

## INTERSTATE COMMERCE:

H.R. 6780: Mr. Jacoway (Interchangeable 2,000 mile tickets)  
 S. 1674: Mr. Shepherd (Federal Control)

## ANTI-TRUST:

S. 1876: Mr. Cummins (Interlocking directorates)

## PUBLIC LANDS:

S. 1853: Mr. Bursum (Utilization waters Colorado River)

## LABOR:

H.Con.Res. 20: Mr. London (Commission to investigate unemployment)

## BLUE SKY:

H.R. 7215: Mr. Denison (Regulating sale of securities)

tory or subdivision of a state or territory within which such coal is mined in addition to any taxes paid or imposed upon property in general. Section 2 provides that for each violation of the act there shall be imposed a fine of not less than \$1,000 or imprisonment for one year or both.

## REVENUE

*H. R. 6773.* Introduced by MR. KELLER; referred to the Committee on Ways and Means. (*Excise tax upon privilege of use and enjoyment of large land holdings.*) Section 2 of the bill provides that anyone owning land in value in excess of \$10,000, whether in possession or leased to others, shall be subject to an excise tax upon the privilege of the use and enjoyment of such excess at the rate of 1 percent. Where land is leased and the value of the lease is in excess of \$10,000, such value shall be deducted from consideration in determining the tax to be assessed against the owner and shall be charged against the lessee.

*H. R. 6768.* Introduced by MR. KELLER; referred to the Committee on Ways and Means. (*Amending 1918 Revenue Act.*) This bill amends section 401, title 4, of the Revenue Act of 1918 to read as follows: "That, in lieu of the tax imposed by title 2 of the Revenue Act of 1916 as amended and in lieu of the tax imposed by article 9 of the Revenue Act of 1917, and in amendment of this section as contained in title 4 of the Revenue Act of 1918, a tax equal to the sum of the following percentages of the value of the net estate (determined as provided in section 409) is hereby imposed upon the transfer of the net estate of every decedent dying after the passage of this act, whether a resident or non resident of the United States." It also provides for a tax of

one percent of the amount by which the net estate exceeds \$20,000, the percentage increasing up to ninety percent of the amount by which the net estate exceeds \$100,000,000. The bill also provides that any portion of these taxes may be paid in United States bonds which will be accepted at par and permanently cancelled and not reissued.

*H. R. 6767.* Introduced by MR. KELLER; referred to the Committee on Ways and Means. (*Abolishing war profits and corporation income taxes.*) The bill expressly repeals Sections 900, 901, 902, 903, 904, 905, 906, and 907 of title 9 of the Revenue Act of 1918 (Fortieth Statutes at Large, page 1122); Sections 500, 501, 502, 503, and 504 of title 4 of the Revenue Act (Fortieth Statutes at Large, page 1101); Sections 628, 629, 630, 800, 801, and 802 of title 8 of the Revenue Act (Fortieth Statutes at Large); Sections 1100, 1101, 1102, 1103, 1104, 1105, 1106, and 1107 of title 11 of the Revenue Act; Sections 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 300, 301, 302, 303, 304, 305, 310, 311, 312, 320, 325, 326, 327, 328, 330, 331, 335, and 336 of the Revenue Act of 1918. Section 254 of this act is amended by striking out the words "Subject to tax imposed by this title" following the words "that every corporation."

*H. R. 6769.* Introduced by MR. KELLER; referred to the Committee on Ways and Means. (*Amending the 1918 Revenue Act.*) This bill defines earned income as wages, salary, or fees for personal services, etc., and unearned income as income derived from rents of land or other property; interest on mortgages, notes or bonds, or other interest-bearing obligations; dividends

on shares of stock, etc., and amends section 211 of title 2 of the Revenue Act by inserting at the end the following paragraph: "That the foregoing surtax shall apply only to so much of the tax-payer's income as shall be unearned and that, in each instance upon so much of the taxpayer's income as is earned the surtax shall be one-half of the foregoing rates." After section 253 a new section 253a is proposed, which reads as follows: "For the purpose of the tax on unearned income, the taxable income of any individual shall include the share to which he would be entitled of the gains and profits, if divided or distributed, whether divided or distributed or not, of any corporation, joint-stock company or association, however created or organized, formed or fraudulently availed of for the purpose of preventing the imposition of such tax through the medium of permitting such gains or profits to accumulate instead of being divided or distributed, and the fact that any such corporation, joint-stock company or association is a mere holding company, or that the gains and profits are permitted to accumulate beyond the reasonable needs of the business, shall be prima facie evidence of a fraudulent purpose to escape such tax; but the fact that the gains and profits are in any case permitted to accumulate and become surplus shall not be construed as evidence of a purpose to escape said tax in such case, unless the collector of internal revenue shall certify that in his opinion such accumulation is unreasonable for the purpose of the business. When requested by the collector of internal revenue, or any official acting by his authority, such corporation, joint-stock company, or association shall forward to him a statement of such gains and profits and the names and addresses of the individuals or shareholders who would be entitled to the

same if divided or distributed. The tax imposed by this subdivision shall not apply to that portion of such undistributed net income which is actually invested and employed in the business or is retained for employment in the reasonable requirements of the business: Provided, that if the collector of internal revenue ascertains and finds that any portion of such amount so retained at any time for employment in the business is not so employed or is not reasonably required in the business a tax of 10 percent shall be levied, assessed, collected, and paid thereon and the finding and ruling of the collector of internal revenue in any and all such cases shall be conclusive and final, unless reversed by the courts."

*H. J. Res.* 124. Introduced by Mr. LONGWORTH; referred to the Committee on Ways and Means. (*To Safeguard Revenue.*) Section 2 of the bill provides that the Committee on Ways and Means of the House of Representatives, when reporting to the House a bill which imposes any new customs duties may, in its discretion, incorporate in such bill an emergency clause declaring that the safeguarding of the public revenue requires the immediate taking effect of any or all such new customs duties or increased amounts of customs duties; and such emergency clause may also declare that the safeguarding of the public revenue requires the immediate taking effect of any other provision or provisions of such bill. Section 3 provides that whenever any new customs duties shall become effective and due in the manner provided for in section 2, every person, who, prior to the date so determined, shall have made any contract to deliver any article, without contract provision for the payment of duties subsequently imposed by law on such article delivered shall become liable for the payment of such duties.

*S.* 1871. Introduced by Mr. WADSWORTH; referred to the Committee on Finance. (*Amending 1918 Revenue Act.*) This bill amends section 3 of subdivision (b) of section 403 of the Revenue Act, which provides for the exemption of bequests, legacies, etc., for the use of the United States by providing that American missionaries duly commissioned and serving under boards of foreign missions of the various Christian denominations in the United States of America, dying while in the foreign missionary service of such boards, shall not be deemed nonresidents of the United States, but citizens of the United States and residents of the state of which they were residents at the time of their commission and their departure for such foreign service. Stock in a domestic corporation owned and held by a nonresident decedent, and the amount receivable as insurance upon the life of a nonresident decedent shall be deemed property within the United States.

*H. R.* 6566. Introduced by Mr. ROSENBLUM; referred to the Committee on Ways and Means. (*Personal income tax.*) This bill amends the 1918 Revenue Bill by adding to subdivision A of section 5 the following: That necessary expenses incurred for medicines, for bills paid to physicians, surgeons, and hospitals, and for funeral expenses, not exceeding \$1,000 in the aggregate in any one taxable year, shall be allowed as deductions in computing net incomes of less than \$5,000.

*S.* 1903. Introduced by Mr. KING; referred to the Committee on Finance. (*Amending 1918 Revenue Law.*) This bill amends subsection (e) of section 250, providing that if any tax remains unpaid after the date when it is due, and for ten days after notice, there shall be added as part of the tax the sum of 5 percent on the amount due and unpaid, plus interest at the rate of one percent per month upon such amount from the time it became due but providing that any taxpayer from whom demand may be made, may, within ten days furnish the collector of internal revenue with bond and sureties for the payment of the tax within ninety days and thereupon be relieved of the penalty of five percent. If the penalty of the bond be claimed after default, five percent of the tax shall be added to the amount to be recovered thereunder. Any amount which is the subject of a bona fide claim for abatement such sum of 5 percent shall not be added and the interest from the time the amount was due until the claim is decided shall be at the rate of one-half of one percent per month.

*S.* 1942. Introduced by Mr. JONES; referred to the Committee on Commerce. (*Exemption tax American Merchant Marine.*) The bill provides that no person or association resident in a foreign country or corporation organized in a foreign country shall be subject to the provisions of any income or excess-profits tax now or hereafter enacted with respect to earnings derived from the operation of ships and that the said exemption from taxation shall be allowed only to persons or associations resident or corporations organized in foreign countries, which said foreign countries grant a similar exemption from taxation to persons or associations resident or corporations organized in the United States.

*S.* 2007. Introduced by Mr. KING; referred to the Committee on Finance. (*Exemption Gold Industry.*) Paragraph (e) of section 304 of the Revenue Act is amended to read as follows: In the case of any corporation engaged in the mining of gold the portion of the net income derived from the mining of gold shall be exempt from the tax imposed by this title, or any tax imposed by Title 11 of the Revenue Act of 1917 and assessed but remaining unpaid, and the tax on the remaining portion of the net income shall be the proportion of a tax computed

without the benefit of this subdivision which such remaining portion of the net income bears to the entire net income.

*H. R.* 6806. Introduced by Mr. SHREVE; referred to the Committee on Ways and Means. (*Amending the 1918 Revenue Act.*) This bill amends clause 1 of subsection B of section 213 of title 2 of the Revenue Act, which reads as follows: The proceeds of life insurance policies paid upon the death of the insured to individual beneficiaries or to the estate of the insured, shall be amended to read as follows: The proceeds of life insurance policies paid upon the death of the insured to individual or corporate beneficiaries or to the estate of the insured: Provided that all corporations which, during the year 1918 or thereafter, shall have received or shall receive the proceeds of such policies shall not be required to account for the same as profit, and if any corporation shall heretofore have been taxed on any such proceeds of insurance policies and shall have paid such tax, such amount of tax on said proceeds shall be refunded to such corporation. Clause A of subsection 1 of section 234 of title 2 of the Revenue Act, which reads as follows: That in computing the net income of a corporation subject to the tax imposed by section 230 there shall be allowed as deduction: (1) All the ordinary and necessary expenses paid or incurred during the taxable year in carrying on any trade or business, including a reasonable allowance for salaries or other compensation for personal service actually rendered, and including rentals or other payments required to be made as a condition to the continued use or possession of property to which the corporation has not taken or is not taking title, or in which it has no equity, shall be amended to read as follows: Section 234 (a) That in computing the net income of a corporation subject to the tax imposed by section 230 there shall be allowed as deduction (1) All the ordinary and necessary expenses paid or incurred during the taxable year in carrying on any trade or business, including a reasonable allowance for salaries or other compensation for personal services actually rendered, and including rentals or other payments required to be made as a condition to the continued use or possession of property to which the corporation has not taken or is not taking title, or in which it has no equity, including premiums paid by a taxpayer on the life of an officer, employee, or other individual financially interested in the taxpayer's business, for the purpose of protecting the taxpayer from loss in the event of the death of the officer or employee.

#### ANNUAL ASSESSMENT

*H. R.* 4813. Introduced by Mr. HAYDEN; referred to the Committee on Mines and Mining. (*Changing the period for doing annual assessment work from calendar to fiscal year.*) The bill amends section 2 of

"An act to Amend sections 2324 and 2325 of the Revised Statutes of the United States concerning the mineral lands," approved January 22, 1880, to read as follows: "Section 2. That section 2324 of the Revised Statutes of the United States be amended by adding the following words: Provided, that the period within which the work required to be done annually on all unpatented mineral claims located since May 10, 1872, including such claims in the Territory of Alaska, shall commence on the first day of July succeeding the date of location of such claim: Provided further, that on all such valid existing claims the annual period ending December 31, 1920, shall continue to and include July 1, 1921, and the annual period to end December 31, 1921, shall continue to and include June 30, 1922."

*S. J. Res. 32.* MR. BURSUM. This resolution expressly states that the provisions of section 2324 of the Revised Statutes of the United States, which requires on each mining claim located and until a patent has been issued therefor, not less than \$100 worth of labor to be performed, or improvements aggregating such amount to be made each year, be, and the same is hereby, suspended as to all mining claims in the United States, excluding Alaska, during the calendar year of 1920 and up to and including the thirtieth day of June, 1921: provided, that every claimant of any such mining claim in order to obtain the benefits of this resolution shall file or cause to be filed in the office where the location notice or certificate is recorded, on or before the first day of August, 1921, a notice of his desire to hold said mining claim under the provisions of this resolution; and hereafter the labor required under the provisions of section 2324 of the Revised Statutes of the United States shall be performed during each fiscal year beginning the first day of July and ending on the thirtieth day of June. This bill passed the Senate June 13 and is now before the House Ways and Means Committee. The Committee is practically unanimous against it.

*S. 1901.* Introduced by MR. KING; referred to the Committee of Mines and Mining. The bill expressly states that the provisions of section 2324 of the Revised Statutes of the United States which require on each mining claim located, and until a patent has issued therefor, not less than \$100 worth of labor to be performed for improvements to be made during each year be, and the same is hereby, suspended during the years 1921 and 1922 and until the first day of July, 1923, and that thereafter the year within which such yearly labor or improvements shall be made shall end upon each thirtieth day of June, succeeding: Provided, that every claimant in any mining claim in order to obtain the benefits of this act shall file or cause to be filed in the office where the location notice or certificate is recorded on or before June 30 in each of the

years 1921, 1922, and 1923, a notice of his desire to hold said mining claim under this act.

#### GOVERNMENT DEPARTMENTS

*S. 1957.* Introduced by MR. NICHOLSON; referred to the Committee on Mines and Mining. (*Department of Mines.*) The bill establishes an executive department to be known as the Department of Mines, for the purpose of encouraging, protecting and promoting the welfare of the mineral industries of the United States. This department shall cover the coal, petroleum, and gas industries including iron, and all the nonmetallic and quarrying industries, whether of minerals or rock. It shall cover in this connection geological investigation, exploration and surveying, the technical problems of mining the ore, problems of marketing, together with the gathering of statistical information, but it shall in no way deal with minerals when they pass from the raw into the manufactured state. The department shall include the following bureaus: Bureau of Mining Technology, Bureau of Mining and Applied Geology, Bureau of Mineral Markets, Bureau of Public Mineral Domain, Division of Mineral Statistics, Division of Publications and Division of Accounting and Disbursing. There shall be also an assistant secretary of mines, in addition to the secretary of mines. The bill specifically places the Bureau of Mines, the Geological Survey, and the War Minerals Relief Commission under the jurisdiction of the Department of Mines.

*H. R. 6378.* Introduced by MR. McDUFFIE; referred to the Committee on Agriculture. (*Department of Conservation.*) The bill creates a department of conservation which shall include the present Forest Service and the Bureau of Biological Survey, the Geological Survey and the National Park service and the Bureau of Fisheries. There is also created a new bureau to be known as the Bureau of Birds and Game. The Secretary of Conservation is charged with the collection of data to be reported at least once a year containing full and complete statistics relating to the natural resources of the United States

*S. 1896.* Introduced by MR. McCORMICK; referred to the Committee on Expenditures. (*Department of Public Works and Lands.*) This department is to supplant the present department of the Interior and shall be headed by a secretary and three assistant secretaries whose duty it shall be to develop and conserve the mineral, forest, land, and water resources and to administer the public lands, parks, and forests, and shall have jurisdiction over the construction, maintenance, and repair of all public works under the control of the United States, including railroads, highways, roads, bridges, telephone and telegraph lines, buildings, monuments, memorials, parks and grounds,

irrigation and drainage systems, water supply systems, dams, etc. Section 5 of the bill authorizes the setting aside of a special fund in the Department of the Treasury, to be known as the Public Works and Public Lands Fund. This department will have control of and the allotment of all space in the several public buildings owned or leased by the United States in the District of Columbia, with the exception of the Executive Mansion and office of the President, the Capitol Building, the Senate and House Office Buildings, the Capitol power plant, the Smithsonian Institution and the Congressional Library. Section 7 provides that all authority, powers, and duties conferred and imposed by law upon the Secretary of War and the Chief of Engineers of the United States Army relating to the improvement of rivers and harbors; the protection and preservation of navigable waters, and all matters pertaining to that department; the preservation of Niagara Falls; the construction, maintenance, and repair of public buildings, monuments, memorials, roads, bridges, etc., the maintenance of public parks and grounds; and all other public works requiring engineering or architectural skill in their execution, unless they are for the exclusive use of the Military Establishment, shall be conferred upon the Secretary of Public Works and Public Lands. The proposed department shall embrace the following departments now in existence: General Land Office, the Geological Survey, the Bureau of Mines, the Reclamation Service, the National Park Service, the Division of Capitol Buildings and Grounds, the Alaskan Engineering Commission, the office of the Supervising Architect, the Bureau of Public Roads and the Forest Service, the office of the Superintendent of the State, War, and Navy Department Building, the Commission of Fine Arts, the Board of Engineers for Rivers and Harbors, the Board of Engineers of New York City, the Office of the Supervisor of the Harbor of New York, the United States Engineer Offices, the Mississippi River Commission, the California Debris Commission, the Board of Road Commissioners for Alaska, the Office of Public Buildings and Grounds and the Washington Monument. The Federal Power Commission is abolished and its duties conferred upon the Secretary of Public Works and Public Lands. All military parks, monuments, and memorials now under the supervision of the War Department, such as Gettysburg, are transferred from the War Department to the Department of Public Works, together with all unexpended appropriations available when the act takes effect. The Secretary of the proposed bureau is given authority, subject to the approval of the President, to make such changes in the organization of the bureaus so desired as may be essential to economical and effective administration and is authorized to reorganize or consolidate any of the bureaus under his jurisdiction. The Secretary of Public Works shall report annually to Congress.

**S. 2080.** Introduced by MR. CALDER; referred to the Committee on Commerce. (*Waste Commission.*) The bill creates a commission to be known as the United States Industrial Waste Commission, whose duty it shall be to report to the President by September 1, 1922, upon the waste in the utilization of available supplies in the United States of timber, power, transportation, oil, coal, essential minerals, and other basic raw materials, to recommend improved methods for their utilization, as well as the elimination of intermittent and seasonal production. The Commission shall serve without compensation and the Department of Commerce shall pay for the incidental expenses in connection with its investigation.

#### WAR MINERALS

**H. R. 6501.** Introduced by MR. KAHN; referred to the Committee on Military Affairs. This bill amends the act entitled "An Act to provide relief in cases of contracts connected with the prosecution of the war, and for other purposes," approved February 2, 1919, by adding thereto the following section: That the Secretary of War, the Attorney General and the Secretary of the Navy acting jointly are hereby authorized to adjust pay and discharge any and all claims against the United States for or on account of the use or manufacture by or for the United States of any patented invention relating to radio communication in cases in which such patented invention was used without agreement with the owner as to compensation therefor; such settlement of claims to cover both past (whether prior to, during, or after the war) and future use where practicable in all cases, and to be based on the determination by such agency as the said Secretaries and Attorney General have designated or established or may designate or establish, of all questions of infringement, validity of patents, and value of inventions: Provided, that this provision shall not be so construed as to deprive owners of patents who shall not accept settlement under this act of any rights of action conferred by the acts for the protection of the owners of patents approved June 25, 1910, and July 1, 1918, respectively; and for the payment of such claims the sum of \$2,500,000, or so much thereof as may be necessary, is hereby appropriated out of any money in the Treasury not otherwise appropriated.

#### INTERSTATE COMMERCE

**H. R. 6780.** Introduced by MR. JACOWAY; referred to the Committee on Interstate and Foreign Commerce. (*Amending the Interstate Commerce Act.*) The bill provides that each common carrier shall issue for the period of one year interchangeable, nontransferable, two-thousand-mile tickets, to be sold at the rate of  $2\frac{1}{2}$  cents a mile, for transportation of persons on any lines of such carrier without regard as to whether the points of origin and destination for any single journey are within the same state. The Interstate Commerce Com-

mission is given authority to modify the rate thus established whenever in its opinion there is a substantial alteration in the average rate level for the transportation of persons by such carriers throughout the country as a whole.

**S. 1674.** Introduced by MR. SHEPPARD; referred to the Committee on Interstate Commerce. (*Federal Control.*) The bill provides for the termination of Federal control of railroads and provides that the period of federal control shall not be computed as a part of the periods of limitation in actions against carriers, receivers of carriers, or in claims for reparation to the commission for causes of action arising prior to federal control.

#### ANTI-TRUST

**S. 1876.** Introduced by MR. CUMMINS; referred to the Committee on Interstate Commerce. The bill provides that sixty days from the date the bill becomes effective no carrier shall have any dealings in materials, supplies, or make any contract after December 31, 1920, for construction or maintenance of any kind, to the amount of more than \$100,000 in any calendar year with another corporation, firm, partnership or association not a common carrier when the carrier shall have as a director, president, manager, etc., any person who is at the same time a director, manager, etc., of such corporation. It provides a fine of \$25,000 for every carrier who shall violate and a fine of \$5,000 for every director, agent, manager, or officer who knowingly voted for or directed such violation.

#### PUBLIC LANDS

**S. 1853.** Introduced by MR. BURSUM; referred to the Committee on Irrigation and Reclamation. The bill provides for a joint commission to be composed of representatives of the states of Arizona, California, Colorado, Nevada, New Mexico, Utah, and Wyoming, and one representative of the United States to be appointed by the President, which shall negotiate and enter into a contract between the states and the United States respecting the further utilization and disposition of the waters of the Colorado River and streams tributary thereto and fixing and determining the rights of the states and of the United States in and to the use, benefit and disposition of the waters of the stream. A proviso is attached making it obligatory that any arrangement, compact, etc., entered into by the representatives must be ratified by the legislature of each of the states and by the Congress of the United States.

#### LABOR

**House Con. Res. 20.** Introduced by MR. LONDON; referred to the Committee of Rules. (*Unemployment.*) The resolution provides for a joint commission to be known as the Joint Commission on Unemployment to investigate and report to Congress within ninety days to what extent the present un-

employment is due to a concerted effort on the part of capital to force a reduction of wages; the advisability of establishing a national building loan fund, a national network of employment exchanges; a national system of unemployment insurance, a national minimum wage law; and such other legislation as will minimize the periodic recurrence of unemployment.

#### BLUE SKY

**H. R. 7215.** Introduced by MR. DENISON; referred to the Committee on Interstate and Foreign Commerce. (*Regulating sale of securities.*) Securities are defined as meaning notes, stocks, bonds, certificates of interest in a profit sharing agreement, certificate of interest in an oil, gas, or mining lease, collateral trust certificate, any transferable share or similar evidence of beneficial interest in or title to property, or any other instrument commonly known as a security. Section 2 provides that it shall be unlawful for any person to deposit, carry in the mails of the United States any postal card, prospectus, circular, or pamphlet intended to offer for sale either directly or indirectly any securities or solicit subscription for such securities or procure advertisement for sale of such securities in newspapers or other publications, when in either case such letter is addressed to any person at any place in any other state, territory at which it is by the law in force in such other state at that time unlawful to sell or offer for sale such securities. Any person violating the provisions of the act will be fined \$2,000 and imprisoned not more than two years, or both. Every sale or contract for sale made in violation of this act shall be void. The same provisions surround the transportation of similar securities by any railroad company, express company, telegraph company, telephone company, or other agency of interstate commerce.

**H. R. 6813.** Introduced by MR. KREIDER; referred to the Committee on Judiciary. The bill provides for a fine of \$1,000 imprisonment not exceeding one year, or both for any person who knowingly disseminates any assertion concerning the quality, the quantity, the value, or merit or use, the present or former price, the purpose or motive of any sale of any security, merchandise, articles, commodity, or services or concerning the method or cost of production of such merchandise, which is untrue or calculated to mislead.

#### MISCELLANEOUS

**S. 7099.** Introduced by MR. DARROW; referred to the Committee on Industrial Arts and Expositions. The bill appropriates \$50,000 to be expended in the celebration of the one hundred and fiftieth anniversary of the signing of the Declaration of Independence by the holding of an international exhibition of arts, industries, manufactures, and products of the soil, mine, and sea in the City of Philadelphia, in the State of Pennsylvania.



## FEDERAL INTERFERENCE CONDEMNED BY LEADING LAWMAKERS

GOVERNMENT INTERFERENCE and regulation of business has continued to hold the spot-light in all discussions on the floor of the Senate, whether it be the large appropriation bills, immigration, control of the packers, or what not. SENATOR MYERS made the following interesting comment in a speech on June 13:

"I am willing to vote to appropriate money for anything which is absolutely necessary for the conduct of our federal government. It costs something to conduct these investigations and if any good could result I would not object. Where Congress has no legitimate right or authority to interfere I do not believe in wasting the time of Congress and the money of the taxpayers.

"Congress has gone mad about investigating and regulating. It has a perfect mania for investigation and regulation of everything under the sun. It has carried its mania for investigation too far. If it could abandon this idea and would go to work and enact such laws as are absolutely needed for the welfare of the people of the country, such laws as are within its province and needed to remedy the evils of the times, and dispense with all of its promiscuous investigating, and adjourn at an early day, I think the country would be better off and Congress would have the thanks of the people of the country. Controversies should be referred to state governments for help in settling their differences. I do not believe the interests of the public would be served nearly so well by the investigation by Congress of a matter over which Congress has no jurisdiction, as they would be served if Congress should confine itself to enacting a few needed laws and then adjourn and go home and let the country and the taxpayers have a rest.

"The clothing manufacturers want Congress to investigate the striking clothing makers union. I am opposed to that. Let the state authorities of New York handle those matters. I think it is unwise, improvident, and imprudent for Congress to investigate every industrial disturbance and statement that strikers are violating their agreement, and every complaint of employees that employers are not treating their employees fairly.

"A committee of the United States Senate is now engaged in investigating the condition of the railroads of the country, when every senator knows the cause of the condition in which the railroads find themselves.

There is a resolution pending before the Senate to investigate the strike of the shipping employees and a resolution for the investigation by the Senate of the West Virginia coal strike. I do not believe congressional investigations of strikes, as a rule, do any good. I think the only result is, generally, to prolong the strike and industrial disturbance. I do not believe that the investigation of the steel strike a year or two ago did any good to anybody or accomplished any good purpose whatsoever.

"For goodness sake, I ask Senators have the states no rights or functions at all any more? Are the state lines to be simply obliterated, to be no more than geographical boundaries? What are we going to do with the states of the United States? Abolish them? We are gradually but surely doing it."

THE VERY TRYING PERIOD through which business is going makes doubly pertinent President Harding's definite statement that there will be no further governmental interference in business. SENATOR KING in an address on the floor of the Senate emphasized this statement by saying:

"I do not object to large corporations, nor do I complain about individuals uniting for the purpose of carrying on legitimate business undertakings. Our industrial system calls for large investments and for corporations possessing great resources. I am protesting, however, against individuals or corporations forming combinations in restraint of trade or for the purpose of stifling competition. I protest against the organization of trusts and monopolies and their control, or attempted control, of legislation, either state or national. Our nation has grown economically and industrially under the competitive theory. The law of supply and demand has resulted in industrial progress and in the development of our country. The American people are willing for legitimate profits to be made. This is a government of the people, and it is their right to live under just and equitable laws. The basis of democracy is a denial of special privileges and an insistence upon the doctrine of equal rights to all. I believe in what has been denominated the 'capitalistic' theory of government—that is, in the right of individuals to own and control property and to make contracts. I believe in a

policy that develops individualism, encourages initiative, promotes self-reliance, strengthens local self-government, and breeds a nation of independent, virile, and self-governing people. But I warn those who are engaged in business that they owe an obligation to this republic, to their states, and to the people. If they misuse their corporate powers, or if they form trusts and combinations which destroy competition, if they seek to dominate business, control legislation, and bring it within the sphere of their influence and authority, they will be betrayers of their country. There can be no absolutism in this government and there can be no autocracy and absolutism in business. This must remain a free country with free opportunity for the humblest. If capital abuses its opportunities and if monopolies and combinations are permitted to thrive and to exercise their despotic power, an irresistible demand will develop, either for nationalization of many industries or for governmental control of the same. If men engaged in big business and in great enterprises are wise, they will deal fairly with the public. They will seek no special privileges and desire no advantages. They will not covet enormous dividends. Big business should seek the public weal and the advancement of the cause of the people. It should seek to cheapen products and not enhance their prices. It should seek cheaper transportation, improved methods of production, and greater rewards for labor. It should be more interested in bringing joy and happiness to those who toil and to lighten their burdens than in the amassing of stupendous fortunes and piling up assets to be estimated in hundreds of millions, if not in billions. The remedies suggested for monopolistic evils may be worse than the disease but they will be offered if economic oppression is permitted. I hope the new Attorney General of the United States will make the Sherman antitrust law a sharp and shining sword for the punishment of these combinations engaged in interstate commerce, whose criminal operations have been so oppressive. No foe from without can ever destroy this republic. Its enemies are internal. It will continue to be the light of the world; to be an example to the world, so long as the principles embodied in the Declaration of Independence and the Constitution of the United States are adhered to, and so long as we are guided by the spirit of justice which in the end must dominate and reign supreme throughout the world."

ON THIS SAME subject, Mr. Wood of Indiana vehemently upheld President Harding's declaration. In part, he said:

"Government interference in business has been baneful in the past; it is baneful now and will prove equally baneful in the future. We have now about eighty departments or bureaus or divisions of government in Washington that are making laws for the people. We are becoming less and less a democratic government in form and more and more a bureaucratic government in form. The bureaus have pursued this policy of annoying business until they have discouraged it to the point where business men are fearful today when they are called upon to invest in business enterprises. We created the Federal Trade Commission, beautiful upon its face, for the purpose of encouraging legitimate business and protecting it, if you please, against unjust competition. Was that purpose carried out? No. The result is that they have done more to damn and discourage the business of this country than any other activity in the country and if I had my way about it, I would repeal the law in the interest of the business of this country. We were killing the goose that laid the golden eggs when, through the legislation of this body and the legislation of the several states, we made it impossible for business to function properly. The time is rapidly approaching when it will not be possible for us to set a hen without getting the consent of the Department of Agriculture. We had better get back to the old practice and instead of hampering business and regulating it to death, we should say to the business of the country, to the men who have the innate genius to do big business, 'Do your best, and the laws of the country will protect you as long as you live within the law.' I am not in favor of the working man doing more than his share in regulating this government, either."

THE BILL for the control of the packing industry, in further discussion by the House of Representatives, more clearly defined the attitude of our congressional delegates in regard to the interference of government in business. MR. PARRISH said:

"Our experience during government control ought to teach us that government ownership and control of any industry is inimical to the best interests of a democratic government. Such experiences as the government control of railroads should cause thoughtful and conservative men to turn from the idea of the government owning or controlling the industries of the nation or the democratization of any industry as a permanent policy. We want to stop the tendency so evident of late which seeks to centralize all power in bureaus and commissions in Washington and leave to the institutions of the states power to function over matters which in their nature are local to the states. This is the only way we will be able to maintain a government truly responsive to the will of the people."

CONGRESSMAN ANDERSON also was one of the standard bearers in behalf of President Harding's famous statement, in discussing the bill for the regulation of the packers, said:

"We have been trying direct prohibitions of law for more than 100 years. They have

proved absolutely inadequate. Industry is progressive. The methods of industry and of manufacture and distribution change from day to day, and no positive iron-clad rule of law can be written upon the statute books which will keep pace with the progress of industry."

LARGE NUMBERS of bills have been introduced amending the Sherman Anti-Trust Law and many speeches have been made in Congress for and against monopolies. MR. HUDDLESTON recently made the following interesting comment upon this subject:

"We have passed the early stage in American industry and are now in the second stage, that of monopolies. These monopolies actually exist. They can not be broken up by law, because they are stronger than the law. Indeed, to destroy them would work a substantial economic harm. They are the product of our civilization and are the industrial form which our civilization has taken. To destroy them would be to fly in the face of conditions of gradual growth and of business ideals which are the fruit of the times. The Sherman Act served a useful purpose in its day, and so, no doubt, the Clayton Anti-trust Act yet does, as applied to some business; but in the main, laws forbidding monopolies and trusts are no longer applicable. They do not fit modern conditions. To actually destroy the trusts would leave a condition of economic chaos. We are entering upon an era of regulation because without monopolies there is no occasion for regulation. We must recognize that monopolies exist in certain great lines of industry and business, and that they ought to exist, for economic laws demand that they should exist. We should, therefore, recognize the right of such monopolies to exist and proceed with courage and determination to see to it that they perform their proper function in our economic life, that they do not oppress the people, that prices are fair, that profits are not unreasonable. In short, we must proceed to regulate the monopolies. We must not dream on of competition and the sooner the policy of regulation is adopted the better for the people. So far as many industries are concerned, steel, iron, coal, oil, etc., American industry has passed through the era of competition and is now in the era of monopoly. If we cannot regulate monopolies then we must own them. I do not favor public ownership nor its extension into industry."

SENATOR REED draws a distinction between regulating monopolies and regulating big business, a distinction between regulation and interference. In an address against the passage of the packer's bill, Mr. Reed said:

"I protest against any more bureaucratic government over the people of the United States. If you can do this thing not only to the great packing houses but to every man engaged in the line of business of butchering; if you can vest in one man in Washington the power of absolute control, the power to make rules which constitute laws—if you can do that in reference to all the branches of this business, then where does the Senate of the United States intend to stop?"

"I draw distinction between regulation of a thing that is a natural monopoly always subject to governmental control as railroads;

I even draw a distinction between a regulation of packing houses that may have grown to such huge proportions that some people think they control markets. I draw a distinction between a law which pronounces its anathemas against evil practices and specifies and defines those and a law which vests in an individual the right in substance and effect to pass laws and to change them from day to day according to his whim. If you can take over this power, not with reference to concerns that are charged with being trusts but with reference to the small as well as the great, I ask what is the limitation? The same line and course of conduct could be properly pursued with reference to coal, iron, steel, wheat, corn, oats, shoes, clothing, household utensils, to everything that constitutes a necessity of life. Thus, we might appoint a half dozen or more men in Washington with power to control the business and lay down the rules and regulations governing all the affairs of our people, to indulge in every kind of espionage, to invade their homes, to centralize here in Washington huge machines that would be a social oligarchy controlled by a few individuals."

"I am not opposing laws that will limit and punish the power of monopoly. I will subscribe to any law that singles out evil practices and proposes to penalize them. That is a government of law, a government of laws that can be enforced in the courts of the land, and it is proposed to set up what in the end is bound to be a socialistic oligarchy which will bring ruin and great distress upon our country and in the end what? There is nothing in our experimentation that leads me to believe that we can expect fortuitous results in an enterprise of this kind."

PROBABLY NO BUREAU ever created in the federal government has received so much condemnation as the Federal Trade Commission. However, business at large will be interested and encouraged by the statement of HOUSTON THOMPSON, chairman of this Commission, in an address delivered before the National Wholesale Grocers' Association, in Chicago, on June 9, in which he said:

"I believe most heartily in the masculinity and upstandingness of the American business man. He needs no governmental crutch. He does not need to hand over his initiative to his government, to be instructed in advance as to what he can or cannot do. The government must not be called in to act as his legal guardian."

"The Federal Trade Commission has advocated over and over again greater efficiency through standardization and elimination of useless varieties, styles and specifications in manufacturing."

"Savings and economies can come only through education, not through arbitrary governmental edicts or associations that by concert of action may seek to enforce limitations upon their members. The human equation that is constantly working in the public mind must be taken into account."

"All the world loves an optimist. We need optimism now, but the one who makes it possible for the optimist to exist is he who sees that we shall build and rebuild on bedrock—a foundation of fair competition mingled with a saving spirit."

# Mining and Petroleum Digest

## NEW YORK SALUTES THE WEST

WESTERN state governors and distinguished citizens who came to Washington in May to solicit federal co-operation in the world's greatest reclamation project (an account of which was printed in the June issue of the MINING CONGRESS JOURNAL) took occasion to make a side trip to New York. They created such a favorable impression that the *New York Herald* felt impelled to pay them this compliment:

"New York is now enjoying a visit from delegates from thirteen western states, California, Oregon, Utah, Nevada, Washington, Arizona, New Mexico, Idaho, Wyoming, Montana, Colorado, Nebraska and Oklahoma, who have come here to wake up eastern public opinion to support plans for putting water on arid lands.

"These energetic Americans know exactly what they want and they do not spare any pains to go after it. They are loaded with statistics, facts and well considered deductions. They are convinced they have a good thing for themselves and for everybody else, and they are not afraid to tell how good they think it is or to ask help to put it through. They are ready to exhort or to submit to cross-examination. They are men with a mission, who take pride in being known as boosters, and want no fame as knockers. Nobody will hear from any of them the admission that any of the thirteen states they come from is not a fine, rich, glorious community. Any of them will admit, however, if closely questioned, that his own state is considerably better in soil, climate, scenery, transportation facilities and people than any other state, but he will be careful to point out that this means simply supreme excellence on the part of his state, not that the others are lacking in admirable natural and acquired characteristics. We salute these sturdy, upstanding, two-fisted gentlemen with affection and respect. We wish we had some pioneers like them to go after the reclamation of agricultural districts which have fallen into decay in the East. Their spirit and their temper would be a fine thing in a number of Atlantic seaboard states."

## WHEN THE WINNER LOSES

A HIGH WAGE which no one can collect is nothing like as satisfying as a lower wage which insures the regular Saturday night pay check. There is one union in Chicago which has learned this lesson, and its members can congratulate their secretary, MICHAEL ARTERY, that they learned it by observation rather than by experience. For when the building contractors proposed a wage cut of 12½ percent, Mr. Artery addressed his men as follows:

"What's the use of making a dollar and twenty-five cents an hour if you can't get work? The cost of living has dropped 29 percent in the last year. We are asked to make a cut in our wages to correspond to this decrease. The carpenters' union has rejected the proposal. The result is 80

percent of them are out of work and are not drawing a cent. At the reduced wage they might be working and making a living. Let's trim our wages, boys, and we'll all eat."

The union voted unanimously to accept the cut.

## WHO IS A LOBBYIST?

AN ANSWER to this question was carried in the June issue of the MINING CONGRESS JOURNAL. That others have been thinking about the same question, and answering it correctly, is seen by the following in the *West Virginia Mining News*:

"There is agitated at the present time in Congress a movement practically to proscribe business men who come to Washington or who send their agents to oppose legislation which is inimical to them or to make suggestions for legislation which would be helpful. It is doubtful that Congress will pass any of the proposed bills which would compel the registration of every representative of every industrial or financial concern, and which would make up a blacklist designed to pillory before the people the industries having such representatives. Congress must remember that the manufacturer is as much a part of our people as the labor leader or the farmer. It is curious how, from time to time, these indirect attacks on business crop up, and coincident thereto is great flurry over what is called the intimidation of Congress by corporations. Of course, the old timer in Washington laughs heartily at these statements when he recalls the fact that in Washington for years powerful union labor lobbies have operated brazenly, dictating to and directing Congress. If this statement appears strong let us recall the activities of the American Federation of Labor with its representatives planted in the galleries, with its telegrams and letters threatening possible political reprisals, with its open activities, which in the case of any other organization would have been absolutely condemned. Other organizations have followed example and, without regard to the right of prohibition, the fact remains that the Anti-Saloon League has been a dictator to Congress in times past. Whether it is today or not we do not know. There are other organizations, and among those protesting against them have been Congressmen themselves, but they controlled too many votes to have any Senator or Representative introduce a bill compelling their registration and making public their arguments. Let us have our constitutional rights and the open door in politics. If the President receives men of all classes and discusses with them questions of policy, there seems to be no good reason why Congress should bar the door to any. There is at least no reason why Congress should not hear the representatives of corporations precisely as it hears the representatives of the American Federation of Labor, with this exception; that corporations do not send representatives with whiplash and threat to any Congressman. If lobbying is to be abolished, let us begin with the American Federation of Labor, and then see that equal liberty is given to every organization in the presentation of its arguments and its support of what it considers its rights."

## METHODS OF THE U. M. W. OF A.

EXCEPTION IS TAKEN to union propaganda methods by the LaFollette (Tenn.) *Press*. What the editor particularly objects to is the circulation by the United Mine Workers of America of a contract-breaking charge against the LaFollette Coal and Iron Company when as a matter of fact the company has always operated on the open-shop basis. The editor, who describes his paper as one "with an independent mind, serving all the people," tells the whole story interestingly:

"A circular has been distributed broadcast by the United Mine Workers of America ordering miners not to seek or accept employment at the mines of the LaFollette Coal & Iron Company. The reason given is that the company has broken an agreement with the United Mine Workers of America, notwithstanding the fact that the LaFollette Coal & Iron Company has always conducted its business on an open shop basis and therefore never at any time had a contract with that organization as such.

"We quote from the circular: 'We take this occasion to warn all laboring men who believe in right and justice to stay away from this mine until such time as the company shall see fit to live by its agreements. The tactics used by this company are in line with the movement that is being advocated by the big interests in America to enslave the workers. If you believe that a man who toils has a right to live in American decency and enjoy the freedom guaranteed to us by the constitution of our country and her flag, do not seek or accept employment at the mine of the LaFollette Coal & Iron Company, LaFollette, Tennessee.'

"To those who have been following the tactics of the United Mine Workers of America, their method, as demonstrated in the circular, is characteristic. Why don't they give their real reason for warning miners to stay away from LaFollette? Why do they always drag forth a cheap brand of patriotism in their appeals? Don't they know that people who are really patriotic do not need to shout their patriotism through a tin trumpet from the housetops?

"The reference to the constitution was ill-advised. If the unknown, unacknowledged author of the circular had read the aforementioned constitution he would have found in it a guarantee of equal rights to all citizens. That guarantee is big enough to include the right of workers to quit when they want to, and broad enough to include the right of other workers to work when they want to. And any interference on the part of the United Mine Workers or anybody else, in the exercise of that individual right to work, is illegal and reprehensible. The United Mine Workers need to learn, once for all, that free men have the right of self determination. No loyal member of their organization has such a right, because his determination is at the will of the leaders.

"The reference to the LaFollette Coal & Iron Company's alignment with the big interests of the country to 'enslave the workers' is another appeal to ignorance and misinformation. It evidently refers

to the open shop movement which is sweeping the country like wild fire. The open shop movement will not enslave, it will liberate men who have been driven into strikes by so-called leaders who presumed to do all the headwork for the laborers. The open shop is the American plan and its ultimate triumph is as sure as death and taxes. It will triumph because it is right. Wrong may rule the land while waiting justice sleeps, but right and justice have a way of mightily prevailing when they do prevail.

"The intent of the circular is in keeping with the report that has been circulated at Dayton, Tenn., to the effect that several pitched battles had been staged here; that men had been killed; that the mine train had been fired on and that no miner was safe in LaFollette. This report was brought to LaFollette by Dayton men who came here to investigate for themselves. After spending a day investigating, they wired for their tools and wired their friends that peace and quietude reigns in LaFollette and have reigned all the time.

"The most convincing answer to the circular is the fact that the mines are running full time, six days to the week, four weeks to the month, by the will of the free miners who owe no allegiance to any man and take no dictation from anybody or anything except their own consciences. It was their initiative that opened the mines and it is their independence that will keep them open. They did not ask the United Mine Workers of America if they could go to work and they will not consult that organization if they want to quit. They are attending to their own business and all they expect of anybody is that others do the same.

"In this connection it appears to us that it is more honorable to accept work at a reasonable wage and to support dependents in decency and comfort, than it is to remain idle and become the recipients of premiums on cussedness to the tune of five dollars a week.

"Despite the 'warning' note in the circular, there is a place in LaFollette for any honest, sober, independent thinking miner to find work without danger of molestation from any source. The circular is a slander on LaFollette and as such deserves the kind of reception it got among fully ninety-five percent of our population. The public here regards it as unwarranted meddling by outsiders in an affair that is purely local. As long as the United Mine Workers of America are so bitter against LaFollette, why don't they withdraw their forces and leave LaFollette to the fate that is so certain to come to all non-union places, according to their doctrines?

"Yea, verily, this is a curious world."

#### CAN THE PEOPLE BE FOOLED?

THEY cannot, if the question under discussion is the open-shop question, in the opinion of the *Arizona Mining Journal*. The writer quotes Samuel Gompers as making public addresses against the "nation-wide open shop movement," in the course of which he said: "Equal opportunity before the law, before government and in the democratic production of industry—that is what we demand and nothing else will satisfy labor." The editor then discusses the statement of Mr. Gompers as follows:

"These men talk about 'equal opportunity before the law, industrial autoocracy and democratic production.'

"Would either Gompers or Morrison allow

any free born American citizen to work at his trade beside one of their union members if he did not have a card in the same unit? No—they would let him starve in the street or call a strike if an employer put him to work. Is this a sample of equal opportunity which they cry about? Is this democratic production? Or is it real labor autoocracy? Let Mr. Gompers or Mr. Morrison answer. Would they allow a man to work in a so-called union shop without a card?

"Is it any wonder the American people are backing the open shop movement when they realize that the closed shop program denies the primary rights guaranteed every individual by the constitution and about which Mr. Gompers likes to prate.

"Belonging to a union should be neither a bar nor a requisite to securing employment. The principle of labor unionism is fine and can accomplish much good, but the demands of labor autoocracy are vicious. The public is not against the laboring man, it is against the labor dictators who exploit both the laborer and the public."

#### LABOR UNIONS CAN BE SUED

FOURTEEN STATES now have laws making it possible to sue voluntary associations, which includes labor unions. It is contended by business men that there would be fewer strikes, less picketing and considerably less interference with commerce and freedom of contract by "business agents" if the unincorporated organizations which they represent could be held responsible in damages for the harm they sometimes do. This same view is taken by *Law and Labor* (New York), which says:

"On May 9 Governor Cox, of Massachusetts, signed a measure passed by the recent session of the Massachusetts legislature, providing for suits by and against voluntary associations in their common name. This is a measure advocated by the League for Industrial Rights. In signing the bill the governor issued a statement in which he said:

"The bill recognizes the true Massachusetts principle that in the eye of the law the most powerful organization stands on an equality with the humblest individual. An individual is responsible for his acts, and if a group of individuals desire to act as a collective unit, then they must assume collective responsibility.

"Thirteen other states, including such great industrial states as Connecticut, New York, New Jersey, Michigan and Ohio, have similar laws, and no one has suggested that the laws in those states have caused any injustice or embarrassment to any innocent party. If any of our citizens feel that they have won a great victory in the passage of the laws, or if any feel that any new burden is placed upon them I believe both groups will be disappointed. The act relates merely to procedure, and in no way changes any fundamental rights."

"This measure was bitterly protested by the labor unions and it was announced on May 12 that the legislative agent of the American Federation of Labor filed with the secretary of state in Massachusetts a petition for a referendum on the measure. If 15,000 signatures petitioning the referendum are obtained the law will go before the people at the next general election. This activity on the part of labor is part of its policy of refusal to submit the question of the rights of labor organizations to the courts which the people have established and maintain for determining the rights of all men and securing the protection of

organized society. It is a part of their fight, not against employers of labor, but against society itself.

"It is sufficient to say that every step which subjects the activities of men to the scrutiny of the law and makes it easier for those who have been wronged to be protected or compensated, is a step in advance toward the greater security of the state, the encouragement of business transactions, and the peace of men's homes."

#### GASOLINE TAX HURTS BUSINESS

PENNSYLVANIA'S new gasoline tax not only adds an additional burden to the consumer, but along the borders will drive business into adjacent states. This is the view taken in a press dispatch, which discusses the situation as follows:

"Pennsylvania's levy of a tax of one cent a gallon on gasoline will add one cent to cost to the consumer. Oil men say it will not affect them, except that they will necessarily co-operate with the state secretary in collection of the tax. Gasoline is selling wholesale in Philadelphia for 26 cents a gallon and in Pittsburgh for 25, compared with 26 cents in New York and 24½ in New Jersey.

"If gasoline advances a cent in Pennsylvania, it will throw some of the gasoline business across the state border, chiefly into New Jersey. This rule is already working along the New Jersey-New York border, where there is a difference of a cent and a half in wholesale price as quoted by Standard Oil Co. of New Jersey and Standard Oil Co. of New York. Motorists, by going a hundred yards or so across the New Jersey border, can get gasoline two cents cheaper. The chief marketer in Pennsylvania is Atlantic Refining Co.

"Pennsylvania is the first large gasoline-consuming state to have a tax on gasoline. The purpose is to raise money for road building and improvements. Other states which have a similar tax are North Carolina and Oregon. In both cases the tax resulted in an increase in price to consumer. A prominent oil man and tax expert says it would cost the states more to collect the tax direct from the consumer than it would bring in revenue; this is why the oil companies must co-operate in collection. He is inclined to regard the tax as a result of what he calls an 'epidemic' of taxation, but does not think it will spread to other states. Such action is not contemplated, as far as known, in New York or New Jersey, nor in any other important gasoline-consuming states.

"Because of importance of gasoline to the oil industry, from point of view of profits, the addition of a cent to the price is regarded as rather unfavorable. A tax of one cent a gallon would amount to from 3 to 4 percent on price paid by the consumer. However, it is not expected consumption will be affected much, because gasoline prices have already been cut about 20 percent from the high level of 1920."

## ANTIMONY IN 1920

EXCEPT for the antimony in hard lead, no antimony has been produced in the United States from domestic ores since 1918, according to the United States Geological Survey.

Hard lead carrying about 14 percent of antimony is a by-product of the smelting of the precious metals, and the quantity of hard lead produced in 1920, which was 12,535 short tons, carried 2,033 tons of antimony and was obtained from both domestic and foreign ores. A small quantity of metallic antimony was produced by one smelter from both foreign and domestic ores, and about 5,000 tons of secondary antimony was recovered from old alloys, scrap, and dross. The average price of antimony in 1920 was 8.49 cents a pound.

Imports for consumption, calculated in terms of metallic antimony, were 11,768 short tons, as compared with 7,867 tons in 1919. Their value was \$1,435,823. They consisted of 1,709 tons of 40 percent ore, 1,375 tons of 75 percent matte, 9,817 tons of metallic antimony, and 298 tons of 80 percent antimony oxides and other compounds.

The general imports were 12,474 tons of antimony and 1,709 tons of ore containing 682 tons of antimony, an increase of about 76 percent as compared with those of 1919. The metal came mostly from China and Japan and the ore from China, France, and Bolivia. The imports of metal from China increased 175 percent over those of 1919.

The imports of type metal were 14,944 short tons, or more than twice those of 1919. Their antimony content was assumed to be 2,063 tons, or about 14 percent.

The exports of foreign antimony from the United States in 1920, mainly to Canada, amounted to 448 tons, more than double those of 1919.

The world's production of antimony in 1920 was about 14,000 metric tons, as compared with 11,900 tons in 1919. Nearly all of it was produced in China, Mexico, and France. For several years China has produced more than 60 percent of the world's supply.

The world's average annual peace-time consumption of antimony, not including that in antimonial lead, is about 22,000 metric tons, of which the United States consumes 7,000 tons. The United States also uses annually about 2,100 tons of virgin antimony contained in domestic antimonial lead and 3,500 tons of secondary antimony recovered from old alloys, scrap, and dross, a total of 12,600 tons.

## ORE CAR PURCHASES AUTHORIZED

THE CHICAGO & NORTHWESTERN railroad has been authorized by the Interstate Commerce Commission to assume obligations totaling \$9,630,000 for the purchase of new equipment. Five hundred ore cars are included.

## MINING COURSES OFFERED AT CARNEGIE TECH

TWO FELLOWSHIPS in mining research and two in teaching research for the scholastic year 1921-22 have been offered by Carnegie Institute of Technology in co-operation with the U. S. Bureau of Mines. Each fellowship is valued at \$750 and appointment will be for ten months, beginning July 1 for the first two mentioned and beginning August 1 for the latter. Assignment duties will be performed by the fellows in the Pittsburgh experiment station of the Bureau of Mines.

Summer courses for mine workmen desiring to qualify as fire bosses and mine foremen, lasting four weeks, have been announced by the Institute to begin June 27. The course will include mine laws, regulations, timbering, gases, lamps, explosives, ventilation, drainage, management, haulage, rescue and first aid.

The faculty will include the following from the Bureau of Mines: A. C. Fieldner, acting superintendent of the Pittsburgh station; John Vlizard, fuel engineer; J. D. Davis, fuels chemist; Dr. E. W. Dean, petroleum chemist; L. C. Isley, electrical engineer; G. W. Jones, gas chemist; D. J. Parker, chief of the division of safety cars and stations; J. W. Paul, coal mining engineer; S. P. Howell, explosive engineer, and Dr. Reinhardt Thiessen, research microscopist.

## FOUR FELLOWSHIPS AT UNIVERSITY OF MISSOURI

IN CO-OPERATION with the United States Bureau of Mines and the state mining experiment station, the school of mines and metallurgy of the University of Missouri has offered four fellowships to graduates who have the equivalent of a bachelor of science degree. The income of each fellowship is \$800 for the year beginning July 1.

The purpose of the work is to undertake the solution of Missouri mining and metallurgical problems. The four fellowships will be granted in mining, ore dressing, physical metallurgy and electro-metallurgy. Applications should contain certified copy of collegiate record, statement of professional experience and names and addresses of three references, and should be sent before September 1 to the director of the school of mines and metallurgy of the University of Missouri, Rolla, Mo.

## CITY FIREMEN TO TAKE BUREAU OF MINES TRAINING

FIREMEN from the Washington, D. C., fire department will visit the Pittsburgh station of the Bureau of Mines during the first week in July to receive training in the use of the self-contained breathing apparatus. These firemen will receive training and will then be able to instruct their fellow workers in the use of the apparatus upon their return. Mayor William Hale Thompson of Chicago has also taken up with the bureau the matter of sending some of his men to Pittsburgh at the same time.

—Here insert 19 pica bold matter

## BEDFORD LIMESTONE, 1920

ABOUT 738,000 SHORT TONS of oolitic limestone, valued at \$7,579,879, was sold in the Bedford-Bloomington district, Indiana, in 1920. The sales in 1919 were approximately 521,700 short tons, valued at \$3,946,332.

This district, which produces more building stone than any other stone quarrying district in the United States, furnishes annually from 35 to 45 percent of the entire building stone output of the country. The sales of building stone in 1920 amounted to 6,343,536 cubic feet (about 460,000 tons), valued at \$7,286,679. Though this was an increase of about 33 percent in quantity over the output of 1919 it was nearly 40 percent less than that of 1912, the record year—10,442,304 cubic feet. The value reported for 1920 was \$7,286,679, an increase of 92 percent over the value for 1919 and the largest value ever reported. The average value per cubic foot was \$1.15 in 1920, 79 cents in 1919, and 33 cents in 1912.

More than 75 percent of the building stone was sold by quarrymen to milling companies or was shipped as rough blocks or rough-sawn stone. The average value per cubic foot of the building stone sold in 1920 was 72 cents. The corresponding average in 1919 was 55 cents. The dressed stone sold by quarry companies that operated their own mills showed an average value per cubic foot of \$2.53 in 1920 and of \$1.37 in 1919.

The wide popularity of this stone as a building material is indicated by its shipment in 1920 to every state except Alaska, Arizona, Nevada, New Mexico, Oregon, Utah, and Vermont. In 1919 Wyoming was also excluded from the states to which the Indiana stone was shipped. In 1920 Illinois took the largest quantity—1,273,514 cubic feet—and New York and Michigan came next, with 611,160 and 600,902 cubic feet, respectively. Ohio took 485,163 cubic feet, Pennsylvania took 306,321 cubic feet, and Canada over 309,000 cubic feet.

## BUREAU OF MINES FIELD CHANGES

G. J. SALMON has been made superintendent of the Mississippi Valley Experiment Station, succeeding Dr. J. J. Rutledge, who was transferred. C. A. Herbert will remain as district engineer for the Central States District. No immediate change is contemplated in the personnel handling investigations into coal mine atmosphere in Indiana and Illinois, coal mine explosions, coal analyses and coal mining methods in the central states. Mr. Herbert expected to submit a final report on his investigations into subsidence from coal mines in Indiana and Illinois by July 1, after which date the investigations were to be continued by Dr. Rutledge. Handling of mineral leases on the Quapaw zinc-lead lands, Oklahoma, will be continued in the hands of Messrs. Coghill and Baumgarten, with Dr. Rutledge as supervisor.

## OIL AND GAS PERMITS

RECENT oil and gas prospecting permits have been issued by the General Land Office as follows:

**ALASKA:** *Juneau District*—Harry R. Taylor, 2560; Barbara Ryston, 2560; Katherine Shelton, 2560; John C. Daugherty, 2560; Lloyd Nelson, 2560.

**CALIFORNIA:** *Independence District*—S. A. Peel, 320; T. A. Morrissey, 2539; A. L. Tait, 2240; Jas. T. Jordan, 2560.

*Los Angeles District*—Leland J. Arms, 2557; Leah E. Jav, 80; Paul H. Marley, 160; E. C. Grainger, 320; Ansell D. Bassett, 2405; Milton T. Koll, 161; Samuel T. Kistler, 165; John K. McGregor, 422; Paul D. Robinson, 1475; W. P. Roe and others, 320; Ernest Martin, 2344; Elizabeth Newton, 160; John Williamson, 1796; Peter G. Peterson, 640; Wm. H. Gamble, 2572; Frances McFetridge, 160; Frank M. Strobridge, 960; Henry C. Brando, 665; Esther M. Linter, 160; Florence F. Vining, 772.

*Visalia District*—R. E. Diggins, 440; Constance Lee de Pastor, 240; F. L. A. Graham, 240; G. K. McGuineagle, 640; Jos. A. Whelan, 320; Howard Herrington, 320; National Exploration Co., 640; Paul Morteson, Jr., 160; Chas. F. Kramer, 240; J. H. Rainey, 160; H. A. Hopkins, 160; John H. Dougherty, 240; R. E. Scheller, 640; Washington H. Ochsner, 2538; Louise L. Tentholt, 240; A. E. Ute, 160; H. S. Williams, 314; Thos. M. Canum, 2556.

*El Centro District*—Samuel T. Marshall and others, 2540; Daniel McNeil and others, 2560; Walter G. Johnson, 2560; H. R. Benton, 2560; O. V. Bixby and others, 560; Chas. E. Anderson and others, 2553; J. D. Fans, 2560; Robt. D. Beal, 640; Chas. W. Hays, 1280; Gus C. Shores and others, 640; J. W. Schuler and others, 2555.

**COLORADO:** *Durango District*—Lucien H. Norton, 960.

*Glennwood Springs District*—J. Bradford Herndon, 80; Austin Corcoran, 2422; Geo. B. Pickett, 2553.

*Montrose District*—J. Bradford Herndon, 1920.

**MONTANA:** *Glasgow District*—Wm. Lindeke, 440; Elmer Hall, 2347.

*Miles City District*—J. A. Thornton, 320; Chas. W. McGill and others, 2504; J. H. Kirkwood and others, 2560; Walter B. Gillette, 2480; Homer M. Johns, 2560; Thos. Connor, 2560; Geo. H. Rue, 1920.

*Havre District*—Arthur D. Sahr, 519; Geo. M. Stow, 2518; Nicholas Gould, 2560; Luther D. Hanberg, 2560; Archie Goodall, 2560; Jas. H. Bonner, 2560.

*Lewistown District*—Wm. H. Fox, 240; Grace L. Simpson, 120; Geo. Cram, 80; Andrew Green, 203; Adam Hoffman, 520.

**NEVADA:** *Carson City District*—Thos. B. Camp, 2560; Geo. E. Porter, 2560; J. C. Carmichael, 640; Fallon Pioneer Oil Co., 2560; Archie J. Allen, 1447; John Darns, 1600; Nev. Midway Oil Co., 320; Clifton T. Barker, 2560; Warren Harrison, 2560; Elmer W. Madden, 2560; Jennie E. Dwyer, 2240; J. C. Robertson, 560; Dorothy T. Harrison, 1920; Jas. M. Smitten, 320; Geo. Fuenman, 2560; John Daynor and others, 1280; Marion A. Dickinson, 640; Wm. Byrne, 2520; Jesse Roney, 2560; Mrs. E. J. Way, 2240; Wallace D. Alexander and others, 1582; A. T. Baker, 1920.

*Elko District*—Paul Clifton Doughty, 2560; Cons. Illipah Oil Co., 800; Nevada Oil Basin Co. Inc., 1600.

**SOUTH DAKOTA:** *Rapid City District*—Fred E. Dole, 400.

**IDAHO:** *Boise District*—Palener Wharton, 2240.

**UTAH:** *Salt Lake City District*—Walter F. Stafford, 120; E. F. Card, 2560; Sidney C. Hoel, 2560; Nelson H. Jensen, 2560; Anson W. Ferguson, 2557; Serge F. Bollis, Jr.,

2480; G. C. Groce, 2560; J. A. Boshard, 2560; Wm. W. Byer, 2560; Bertha E. Dittmore, 2525; Harry B. Phelps, 160; E. P. Bean, 2560; A. F. Rath, 2120; Geo. T. Hansen, 320; Robt. M. Jones, 2560; Wm. C. Dill, 160; Jessie E. Sargent, 2320; W. A. Blackmore, 1520; Martha B. Wadley, 2560; Saml. S. Pond, 2560; Walter E. Speakman, 2560; A. F. Rath, 2560; H. L. Rath, 2560; Jessie Bailey, 1760; Daisy Robinson and others, 2560; Hyrum Leany and others, 1920; Geo. A. Williams and others, 2525; F. G. Martines, 2560; Daisy R. Crawford, 2560; Helen M. Morgan, 1360; Gertrude C. Strong, 680; David M. Ravity, 2560; Birmingham Clegg, 2560; Lusk Pet. Co., 2560; A. B. Woodhouse, 415; E. J. Cannon, 2560; Maude E. Goddard and others, 992; Mrs. Jos. S. Snow and others, 440; Thos. L. Mitchell, 1360; Jos. H. Rayburn, 1280; Chas. A. Rice, 1200; Geo. T. Smith, 2560; Rewel G. Hester, 2400; Mathew Warner, 2046; Sam. H. Spears, 2560; W. H. Lowden, 2560.

*Vernal District*—Chas. L. Sparks, 2575; Edward S. Lawyer, 2560; A. E. Young, 2539; Davis Oil Shale & Ref. Co., 2327.

**WYOMING:** *Cheyenne District*—Boston Petroleum, 40; J. E. Trask, 1220; Wyo. Eastern Oil & Gas, 2560; Chas. B. Walker, 160; Francis L. Gern, 2560; Alameda Oil Co., 2400; John J. Robertson and others, 640; J. C. Rankin, 1480.

*Buffalo District*—Chas. A. Ackenhausen, 960; Richard P. Camden, 1918; John H. Howard, 1274; Roger G. Culbertson, 2400; John H. Cooper, 2035.

*Newcastle District*—McKinley H. Barram, 80; John Safford, 320; Harry L. Marsh, 280; Jas. G. Stephens, 631; Jos. Saul, 80.

*Douglas District*—C. L. Holden, 2388; H. E. Gunde, 2360; M. W. Sanford, 2360; Continental Land Co., 900; W. F. Brennan, 80; Wm. A. Kingsley, 1278.

*Laurel District*—Clyde H. Brown and others, 2560; Homer A. Hedgers, 1743; Old Faithful Oil & Gas Co., 1600; Anna D. G. Hough, 471.

*Evanson District*—Sedo Tunko and others, 1034; Lost Creek Con. Oil & Gas Co., 2557; Red Desert Oil Synd. Corp., 2558; Albert E. Ulter, 2539; Frank McVaugh, 2650; Hennan H. Green, 920; E. P. McGrew, 2125; Lionel H. Gray, 2567; Geo. Buhn, 1828; F. E. Whitmore, 2560; L. W. Sargent, 2540.

## HERCULES POWDER ACQUIRES AETNA EXPLOSIVES CO.

THE Hercules Powder Company at Wilmington, Delaware, has announced the acquisition of the Aetna Explosives Company, Incorporated, which consolidation was sanctioned by the stockholders of the Aetna on June 6. This marks the culmination of a transaction that has interested financial and business circles for the last two years.

By this purchase the Hercules company will acquire the plants of the Aetna company at Birmingham, Alabama; Emporium, Pennsylvania; Sinnamahoning, Pennsylvania; Ishpeming, Michigan; and Fayville, Illinois; two black blasting powder plants, one at Goes Station, Ohio, and the other near Birmingham, Alabama; a plant for the manufacture of blasting caps and electric blasting caps at Port Ewen, New York, and a plant for the manufacture of fulminate of mercury, for use in blasting caps, at Prescott, Ontario, Canada.

"With the Aetna company's business the,

Hercules Powder Company becomes a much larger factor in the explosives business of the United States," said J. T. Skelly, vice president of the Hercules company.

"The company is now in a position to compete for business in all parts of the United States, and will be greatly strengthened in important fields which have hitherto been closed to us on account of freight rates from our plants.

"The reorganization will take place gradually. As in some cases we already have branch offices in cities where there is an Aetna office, consolidations will be necessary and new alignments of branch office territories must be worked out. It is our intention to retain as many members of the present Aetna organization as we consistently can, but obviously, one of the great advantages of this purchase will be the reduction in overhead which it will make possible. Ultimately the principal members of Aetna's office home organization will be transferred to Wilmington."

## PERSONALS

JOHN J. HAAK, of Portland, Oregon, was in Washington on business June 17 to 20.

A. G. STROGER, of Portland, Oregon, was a caller at the Tax Division of the American Mining Congress in June.

A. CRESSY MORRISON and MR. O'SHEA of the Union Carbide Company were in Washington on matters pertaining to their company June 15.

E. B. KIRBY, chairman of the Mineral Laws Revision Committee of the American Mining Congress, consulted with Secretary Callbreath on June 15 regarding the work of this committee.

B. BRITTON GOTTSBERGER, formerly of Arizona, now of New York, was a caller at the offices of the Mining Congress June 25.

HOWARD F. WEIRUM, of Seattle, Washington, was a Washington visitor during June.

CHARLES A. MITKE, who has been delivering lectures at the Boston Institute of Technology, Cambridge, left New York early in June for his home in Bisbee, Arizona. Enroute he expects to visit several of the chairmen of the sub-committees of the general committee, metal mining branch of the Standardization Division of the American Mining Congress.

DR. HENRY MACE PAYNE of Andrade-Eyre, Incorporated, left the latter part of June to examine mining properties in Mexico. Dr. Payne was in Washington during the month to attend the meeting of the American Wholesale Coal Trade Association and to consult with the American Mining Congress in regard to the work of the committee on export coal, of which he is chairman.

## COAL LEASING ADMINISTRATION

GENERAL PRINCIPLES in the laying out of coal leasing units were considered at a recent meeting of the Board of Coal Appraisal of the Interior Department. It was determined that the Secretary had the power under the Leasing Act to embrace in one leasing unit separated blocks of land which might, in conjunction with feehold blocks, be mined from the same opening. Consideration of whether the units might be laid out as the applicants desired, but with a view to the best working of the coal, led to the conclusion that the Secretary has authority to modify both leasing and prospecting regulations.

The question of whether the limit of acreage leased should be on the basis of tonnage rather than on the surface area was also discussed. It was agreed that the amount of coal mined was the real basis, and that each case should be determined upon its own merits. Specific leasing units heretofore laid out by the assistant engineers were discussed and, in general, approved.

## TEXAS POTASH SIMILAR TO GERMAN

SPECIMENS of potash salts examined by the United States Geological Survey, Washington, and the Texas Bureau of Economic Geology and Technology, Austin, show percentages of potash which suggest at least the richness of that of Germany and Alsace. The samples were obtained from two borings about 80 miles apart, sunk by oil companies in the "Red Beds" region of Texas, where salt beds, red shales, gypsum, and other materials are associated in strata of nearly the same geologic age and general character as the potash-bearing beds of western Europe. The thickness of the potash-bearing beds in Texas represented by these samples is unknown, however, and the questions remain to be determined whether the deposit is thick enough to furnish potash in as great amount and of as high a grade as those in Europe, or whether it is of scientific interest only and mainly important as showing that potash-rich salts were actually deposited in this region and that other borings in areas where similar beds occur may discover commercial deposits.

## LITHIUM MINERALS, 1920

THE production of lithium minerals in 1920 was confined to shipments of lepidolite from the Stewart mine at Pala, San Diego County, Calif., and spodumene from the Etta and Swanzy mines near Keystone, Pennington County, S. D. The lepidolite was used in the manufacture of glass and the spodumene in the manufacture of various chemicals. The total quantity of these two minerals reported to the United States Geological Survey as used for manufacturing purposes in 1920 was 11,696 short tons, valued at \$173,002; in 1919, 6,287 short tons, valued at \$115,000.

DR. MANNING AND DR. COTTRELL  
LEAVE FOR EUROPE

TWO FORMER DIRECTORS of the United States Bureau of Mines, Dr. Van H. Manning and Dr. F. G. Cottrell, left June 14 for Europe to do special investigative work. Dr. Manning is director of research for the American Petroleum Institute and Dr. Cottrell is chairman of the division of chemistry and chemical technology of the National Research Council.

## SLATE VALUES REACH PEAK

THE YEAR 1920 was the most successful one on record for slate quarriers. Geological Survey figures show that the value of the year's production was \$8,726,442.

This value does not indicate any decided revival in the slate industry as a whole, however, as may be seen in the fact that the quantity of roofing slate sold, 396,230 squares, was only eight percent more than that of 1879, the year of poorest business, and more than 72 percent less than in 1902, the year of largest recorded sales. But prices obtained last year made up for all other shortcomings of the market. The average price per square was \$8.90, where the price in 1879 was only \$3.35 and that of 1902 was only \$3.45, a gain of only ten cents in twenty-three years.

Exports of roofing slate in 1920 were valued at \$49,621 and imports at \$4,512. General industrial conditions in the entire industry were considered better than during the four preceding years. Wages were high, but there were no general strikes, and price advances covered increases in cost of labor and coal.

Demand for mill stock was good, many orders not being filled on account of labor and railroad conditions. Blackboard and structural slate was also in good demand, but a scarcity of each was brought about by the poor demand for Pennsylvania roofing slate, which must be removed before the structural rock can be worked. A feature of the industry during the last few years has been the increased use of crushed slate granules as a surfacer for prepared asphalt roofing.

## OIL SHALE RETORT REPORT

NUMEROUS INQUIRIES received by the Bureau of Mines from individuals desiring to make their own assays of oil shale while out in the field, and others from commercial assayers and research men, have been answered by the Bureau of Mines in the form of a technical paper prepared by L. C. Karrick, oil shale technologist of the bureau. The paper is known as Serial 2229.

Co-operating with Mr. Karrick were M. J. Gavin, refinery engineer, J. J. Jakowsky, petroleum engineer, and L. A. Anderson of the University of Utah. Construction and use of the retort selected by the Bureau of Mines for its field and laboratory work are discussed in detail.

## IMPARTING COLOR TO GEMS

IF EXPERIMENTS now being carried on at the Reno station of the United States Bureau of Mines are successful, it will be possible to give color to colorless gems which exist in abundance in the west. The experiments so far have produced results which are considered promising.

The penetrating radiation of radium is the agency through which gems are being colored. In a preliminary experiment, a colorless Colorado topaz was tinted yellow. The coloring when exposed to light was found to be not permanent, and the experimentation continues with a view to making the color light-proof.

Successful termination of the experiments would add materially to the value of western gem stones, whose market value is low on account of their lack of the tint qualities deemed essential by gem manufacturers.

## GEOLOGICAL SURVEY NOTES

G. F. LOUGHIN has been relieved of administrative duties in order to complete his Leadville monograph. During his absence R. W. Stone is in charge of the division of mineral resources and J. P. Dunlop is attending to Mr. Stone's regular duties.—G. W. Stose returned June 17 from field work in the Big Stone Gap area for the Virginia Geological Survey. While there he conferred with Mr. Giles, of that Survey, in regard to the Geology of the Pennington area.—W. C. Alden and J. T. Pardee left June 23 for Lewistown, Mont., where they will resume work on the glacial and physiographic history of Montana east and west of the mountains, respectively. Before resuming this work Mr. Pardee will make a brief examination of groundwater resources in the vicinity of Townsend, Mont.—J. G. Gillson, assistant geologist, is to assist Edward Sampson in a geologic reconnaissance of the region south of Lake Pend Oreille, Idaho. They will probably start for Idaho late in this week.—Gail F. Moulton joined W. T. Thom, Jr., in Miles City, Mont., June 13, when they started for Hardin, Mont., where they will make oil and gas investigations in the Crow Reservation.—Frank Reeves left Washington June 15 for Lewistown, Mont., to resume oil and gas work in central Montana. J. Gilluly has been appointed geologic aid and will join Mr. Reeves at Lewistown.—P. C. Benedict has been appointed geologic aid and left Washington June 16 to join R. C. Moore in oil and gas work in Garfield and Kane counties, Utah.—W. W. Boyer left Washington June 14 and E. M. Spieker left June 16 for Salt Lake City, Utah, where they will outfit and proceed with work on the coal beds in the Wasatch Plateau.—C. R. Longwell resumed the mapping of the limestones and dolomites of western Connecticut, where he will spend the remainder of the month.—G. C. Martin sailed from Seattle June 17 to do geologic work in the Yukon and Koyukuk River basins.

## WATER POWER APPLICATIONS, PERMITS AND LICENSES

RECENT applications for permit or license under the Federal Water Power Act filed with the Federal Power Commission are as follows:

No. 190. Small diversion dam in the Uintah River, in Duchesne county, Utah, a five mile conduit to forebay, one mile pen stock to power house on the Uintah River, a small diversions dam in Pole Creek and a two mile conduit leading to the above mentioned forebay, to develop 6,500 horse power, proposed by the Uintah Power & Light Co., care Charles Demoisey, Vernal, Utah.

No. 191. Two dams and two reservoirs storing 7,500 acre feet, with two short conduits and to power houses in Little Rock Creek, Los Angeles county, California, to develop about 4,800 horse power, proposed by the Little Rock Power & Water Company, room 307 Delta Building, Los Angeles, Calif.

No. 192. Transmission line across public lands in Inyo county, California, proposed by C. B. Johnson, care V. G. Preston, Bishop, Calif.

No. 193. Five small reservoirs in the headwaters of the north and south forks of Big Pine Creek, Inyo county, California, with a series of three conduits and three power houses along the stream below, a dam 73 feet high creating a reservoir one mile square to be constructed in Baker Creek and the water therefrom diverted over the divide into the conduit leading to the second power house on Big Pine Creek, developing 8,000 horse power, proposed by the department of public service of Los Angeles, Calif.

No. 194. Develop Rock Creek Lake as a reservoir to store 50,300 acre feet, conduit 7½ miles to power house on Rock Creek, in Mono county, California, head 1,723 feet, to develop 6,000 horse power, proposed by the department of public service of Los Angeles, Calif.

No. 195. Diversion dam in Sawmill Creek, and a two-mile conduit to a constructed power house on Division Creek, the water to be returned by a ditch to Sawmill Creek for users lower down, developing 1,300 horse power, proposed by the department of public service of Los Angeles, Calif.

No. 196. Two reservoirs in the headwaters of Cottonwood Creek, Kern County, California, storing 7,860 acre feet, two conduits and two power houses to be constructed on the stream below and just above the installed plant of the city of Los Angeles on Cottonwood Creek, to develop 5,000 horse power, proposed by the department of public service of Los Angeles, Calif.

No. 200. Comprehensive scheme of development in Green River from its confluence with the Grand River to the town of Green River, Wyoming. The applicant proposes to construct four power developments as follows:

*Flaming Gorge Unit.* Dam 300 feet high at Flaming Gorge, Daggett county, Utah, seven-mile tunnel and five-mile canal to power house, develop 152,200 horse power.

*Lodore Canyon Unit* at Lodore Canyon, Colorado. Rock fill dam 200 feet high and canal 40 miles to power house at Brush Creek, Utah, to develop 171,600 horse power.

*Minnie Maud Unit* located on Minnie Maud Creek, 50 miles above Green River, Utah. Rock fill dam 150 feet and canal 50 miles to power house at Green River City, to develop 408,800 horse power.

*Stillwater Canyon Unit* just below the junction of the Green and Grand Rivers. Rock fill dam 200 feet high, backing the water up to Green River, Utah, and up the Grand River into Colorado. Power house at the dam to develop 180,000 horse power. Proposed by the Green River Power Company, Pacific Electric Building, Los Angeles, Calif.

No. 203. Transmission line two miles long

across the Uncompahgre National Forest, Ouray county, Colorado, proposed by Thomas P. Mitchell, Ouray, Colo.

No. 204. Dam 50 feet high in the South Fork of Clearwater River, Idaho county, Idaho, conduit one fourth of a mile to power house, to develop 960 horse power. Will replace and drown out an existing power dam. Proposed by the Grangeville Electric Light & Power Project, Grangeville, Idaho.

No. 210. Dam and reservoir in south fork of Tuolumne River. Sec. 34, T. 1 S., R. 19 E., M.D.M., California; second dam and reservoir in Sec. 36, T. 1 S., R. 18 E., M.D.M., conduit from second reservoir to a power-house on main stream in Sec. 25, T. 1 S., R. 17 E., M.D.M., developing 1,000 horse-power, a diversion dam in the Tuolumne River at the power-house tail race, and 17 mile conduit to a second power-house at Ward's Ferry in Sec. 2, T. 1 S., R. 15 E., develop 8,000 horse-power, proposed by the Yosemite Power Co., Groveland, California.

No. 211. Application for license to use the power site at the U. S. lock and dam No. 5 in the Muskingum River at Lake Chute, Ohio, to develop 550 horse-power, proposed by Harry W. Deprez, Shelbyville, Indiana.

No. 212. Dam 34 feet high and 100 feet long at the outlet of an unnamed lake, and 36 inch wood stave pipe 1,800 feet long to a power-house at the head of Didrickson Bay, Chichagof Island, Alaska, proposed by the Hirst-Chichagof Mining Co., 316 First Avenue South, Seattle, Washington.

No. 213. Diversion dam two feet high in Cann Creek, at the head of Lisienski Inlet, Alaska, and pipe line 1,000 feet long to a 75 horse-power air compressor. No electric power will be developed. Proposed by J. H. Cann, Box 281, Juneau, Alaska.

No. 214. Dam and power-house to be located near the mouth of the North Fork of White River, in Baxter County, Arkansas. The dam will have such a height as investigation proves economical. Proposed by the Dixie Power Co., Title Guaranty Building, St. Louis, Missouri.

No. 215. One or two large dams and power-houses in the Klamath River in Klamath County, Oregon, developing 94,000 horse-power. The proposed development will affect a stretch of the river about ten miles long from Sec. 31, T. 39 S., R. 7 E., to Sec. 8, T. 41 S., R. 6 E., W. M., proposed by the California Oregon Power Company, San Francisco, California.

No. 216. Conduit 3,100 feet long from present diversion dam in the Merced River, in Sec. 22, T. 3 S., R. 19 E., M.D.M., to a power-house developing 500 horse-power. This plant will supersede a small existing plant. Proposed by the Original Mining and Milling Company, Merced, California.

No. 217. Diversion dam 40 feet high in Boulder Creek, a branch of the San Diego River, in Sec. 10, T. 14 S., R. 3 E., S.B.M., in San Diego County, California, and conduit 4½ miles to a power-house. Proposed by Ed Fletcher, 920 8th St., San Diego, California.

No. 218. A comprehensive development of available power in Pass Creek and tributaries, in Congarok Precinct, Seward Peninsula, Alaska. The entire development will have a capacity of about 40,000 horse-power. Proposed by the Saw Tooth Power Co., care Frank B. Colton, attorney, 256 Broadway, N. Y.

No. 219. Dam 100 feet high in the Middle Fork of Feather River, in Butte County, Montana, and conduit one-half mile long to power-house, to develop 1,700 horse-power proposed by Luther O. Griffith, Oroville, California.

No. 220. Low diversion dam and wood stave pipe line three quarters of a mile long to a water wheel developing about 100 horse-power, Middle Fork of Little Laramie River, Albany County, Wyoming, proposed by the

Colorado Gold Mining Company, Centennial, Wyoming.

No. 221. Application for a license for a project in the Big Horn River in Sec. 4, T. 5 N., R. 6 E., Wind River Meridian, Fremont County, Wyoming. The dam is already built and the application is in direct conflict with the application of the Wyoming Power Company for the same project. Proposed by John T. Clarke, room 314, 503 Fifth Avenue, New York City.

No. 222. Comprehensive scheme for the development of power in Lewis River, Washington, by the construction of four diversion dams, conduits and power houses at the following points: below the mouth of Cedar Creek, above Cresap's Ferry, at Swift Creek and above the mouth of Muddy River, in Clark, Skamania and Cowlitz counties, Washington, proposed by the Lewis River Hydro-Electro Power Company, 704½ Main Street, Vancouver, Washington.

No. 223. Low diversion dam, conduit, and power house at Sandstone Falls, New River, Raleigh and Summers Counties, West Virginia, to develop about 4,500 horse-power, proposed by Charles B. Hawley, 450 Munsey Building, Washington, D. C.

No. 224. Dam and power house at Kootenai, in the Kootenai River, in Lincoln County, Montana, to furnish power for a pulp mill at the confluence of the Yaak and Kootenai Rivers. It is planned to construct a second pulp mill at or near Kalispell, in the region of Flathead Lake, Montana. The company also proposes to construct a small power project at the mouth of the Yaak River. Total development will be approximately 85,000 horsepower. Proposed by the Kootenai Power Construction Company, 347 Madison Avenue, New York, N. Y.

No. 225. Development of power in Buffalo River, in Marion County, Arkansas, by the construction of a high dam to be located near the mouth of Panther Creek; a second dam will be built at the head of the pool created by the first dam. The two projects will probably develop 20,000 horsepower. Proposed by the Dixie Power Company, Title Guaranty Building, St. Louis, Missouri.

**PRELIMINARY PERMITS.**—No. 7, Virginia, Roanoke River Development Company, 318 Mutual Bldg., Richmond, Va. No. 20, Idaho, Utah Power and Light Co., care of M. O. Leighton, National Savings and Trust Bldg., Washington, D. C.; No. 48, Illinois, State of Illinois, care of The Governor, Springfield, Ill.; No. 81, North Carolina, Granite Falls Manufacturing Co., A. A. Shuford, Secretary, Granite Falls, Caldwell County, N. C.; No. 88, California, Merced Irrigation District, Merced, Calif. No. 113, Utah, Great Basin Power Company, Walker Bank Bldg., Salt Lake City, Utah; No. 121, Arizona, James B. Girard, care of Parsons, Klapp, Brinckerhoff and Douglass, 84 Pine St., New York City, N. Y.

**LICENSES.**—No. 104, Wyoming, Home Colony, care of L. R. Ewart, Cody, Wyoming; No. 126, Idaho, John R. Love and G. A. von Brecht, care of Mr. J. D. Fisher, Colorado Springs, Colo.; No. 192, California, C. B. Johnson, care of V. G. Preston, Bishop, Calif. No. 203, Colorado, Thomas P. Mitchell, Ouray, Colo.; No. 41, Alabama, Alabama Power Co., Birmingham, Ala.

### METAL PRODUCTS ADD GREATLY TO NATION'S PROSPERITY

CALCULATIONS based on federal census figures published recently show that the value of the country's factory output practically tripled during the five-year period from 1914 to 1919. In 1914 there were 275,791 manufacturing establishments which turned out products valued at \$24,246,435,000. By 1919 the number of factories had grown to 288,376 and the value of their products aggregated \$62,588,905,000.

The mines contributed heavily to this increase in the value of the national factory output. The following are a few instances:

Copper smelting and refining establishments decreased from 37 to 33, but the value of products increased from \$444,022,000 to \$632,897,000.

Lead smelting and refining plants increased from 22 to 25; products from \$171,579,000 to \$192,655,000; zinc smelting and refining, 29 to 38; products from \$53,538,000 to \$103,103,000.

Metal smelting and refining, not otherwise specified, numbered 7 establishments and \$13,996,000 worth of products in 1919; no figures for 1914.

Smelting and refining (not from the ore) establishments decreased from 84 to 81, but value of products from \$39,902,000 to \$50,246,000.

Aluminum manufactures increased from 37 to 84 and value of products from \$19,597,000 to \$69,474,000.

Babbitt metal and solder factories increased from 109 to 126 and value of products from \$19,180,000 to \$70,531,000.

Brass, bronze and copper products factories increased from 992 to 1122 and value of products from \$162,199,000 to \$487,707,000.

Chemical factories increased from 394 to 587 and value of products from \$158,054,000 to \$423,537,000.

Copper, tin and sheet iron work factories increased from 4,527 to 4,790 and value of products from \$94,891,000 to \$160,932,000.

Thirty-one ferro-alloys factories produced \$40,640,000 worth of products in 1919; no figures for 1914.

Iron and steel blast furnaces increased from 160 to 195 and value of products from \$317,654,000 to \$794,467,000. Iron and steel, steel works and rolling mills increased from 427 to 484 and value of products from \$918,665,000 to \$2,812,775,000. Iron and steel, bolts, nuts, washers and rivets, not made in rolling mills, increased from 102 to 147 and value of products from \$23,403,000 to \$91,655,000. Iron and steel, cast iron pipe, 59 establishments both years; values of products increased from \$26,659,000 to \$50,235,000. Iron and steel, doors and shutters, 43 to 57; products increased from \$5,184,000 to \$10,877,000. Iron and steel forgings, not made in steel works or rolling mills, 191 to 240; products increased from \$28,961,000 to \$171,676,000. Iron and steel, nails and spikes, cut and wrought, including wire nails not made in steel works

or rolling mills, 64 factories both years; products increased from \$7,199,000 to \$17,555,000. Iron and steel, case hardened, tempered or otherwise specially treated, including welding, 522 in 1919 with products valued at \$11,030,000. No figures for 1914. Iron and steel wrought pipe, 36 to 51; products increased from \$37,655,000 to \$84,011,000.

Lead, bar, pipe and sheet, 27 to 31; products increased from \$7,431,000 to \$16,802,000.

Minerals and earths, ground or otherwise treated, 244 to 390; products increased from \$10,307,000 to \$43,692,000.

Oil, 181 to 278; products increased from \$38,040,000 to \$160,431,000. Petroleum refining, 176 to 304; products \$396,361,000 to \$1,644,684,000.

Steel shipbuilding, 79 to 159; products from \$66,217,000 to \$1,454,116,000. Steel, car and carriage springs, not made in steel works or rolling mills, 84 to 125; products from \$11,595,000 to \$57,150,000. Portable steel barrels, drums and casks, 34 with products valued at \$24,943,000; no figures for 1914. Structural iron works not made in steel mills or rolling mills, 1235 to 1147; products \$159,378,000 to \$304,961,000.

Sulphuric, nitric and mixed acids, 32 to 39; products from \$15,215,000 to \$31,470,000.

Tin plate and terneplate, 31 to 23; products from \$68,343,000 to \$97,399,000.

### UNIONS AND UNDER-PRODUCTION

SO MANY of industry's short-comings have been traced in recent months by the press to the labor unions, so much of the prosperity of the nation dependent upon the attitude of labor organized and unorganized, that the comment recently made in *Iron Age* upon prosperity and union methods is of more than usual interest. It reads as follows:

"If all the tailors unite to make one-half as much clothing as formerly, if all the furniture factory workmen arrange to produce one-half as much furniture, if the artisans in the building trades bring it about that houses are erected at one-half the former speed, measured in man-days—if such a thing is done by workers all along the line, the people have so much less prosperity and advancement. It does not matter an iota, considering the thing collectively, what the rates of wages are or the prices or costs of things. The people cannot enjoy things if they are not brought into being."

"The practice of unionism has been to multiply the number of jobs and reduce the amount of service performed in a day. The loss must be borne by someone. It cannot be borne by the employer's profit. The workman may think so when excited by the soap box orator, but an analysis of the total paid in wages and salaries and of the total of actual profits susceptible of diminution without throttling industry would show such an extreme disproportion that the futility of the ambition would be apparent."

"When, however, the proportion of all industry that is dominated by unionism is small the unions have all the other workers as the field for the exploitation. At the present time the members of union are about one-tenth of all the workers. If the proportion were reversed the progress would not work and the e would be industrial decay."

### ENGINEERS WIN DAMAGE SUIT

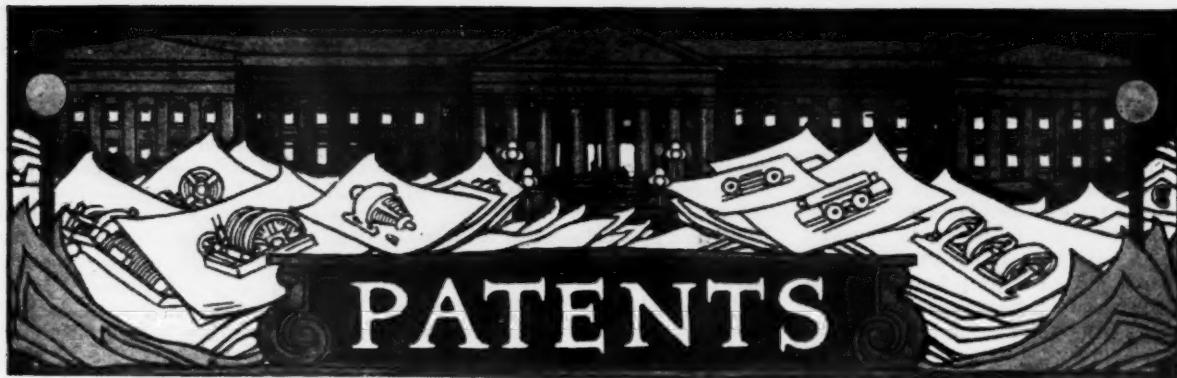
ON THE GROUND that they acted within the scope of their official duties in making to the Secretary of the Interior an adverse report upon the plans of J. H. Levering, hydraulic engineer, for the utilization of the waters of the Potomac River above Great Falls, a few miles from Washington, the District of Columbia Supreme Court sustained the demurrer to the \$25,000 damage suit brought by Levering against N. C. Grover, chief hydraulic engineer; John C. Hoyt, C. C. Stevens and R. W. Davenport, engineers of the U. S. Geological Survey; E. C. Bobb and Charles A. Bissell, engineers of the Reclamation Service; W. M. Read, chief irrigation engineer of the Indian service, and Herman Stabler, chief engineer of the Geological Survey. The court dismissed the suit.

The defendants also attacked the case of Levering on the ground that he had failed to show in his pleadings that his plans would have been accepted even if the adverse report had not been made.

### HOW TIMES HAVE CHANGED

FORMERLY, to amass riches was to run the risk of political ostracism. Only a few short years ago "big business" was under a stigma, more or less, and few office holders would consider for a moment taking council with a banker, for to do so would have given their prospective opponents much "thunder" to use against them in the campaign for re-election. But it is different now. Democracy is becoming more real. The West Virginia *Mining News* prints the following observations from its correspondent at the capital:

"Recently the newspapers carried the story that President Harding had discussed certain financial and loan policies with a number of prominent bankers at the White House. The conference was preceded by a dinner and the guest list was composed of men of sound experience in the industrial world. How times have changed! This brings back an incident of several years ago—we do not need to be specific—when a group of bankers went to Washington to consult with the President, and were informed by his Secretary that he would not see them. On the same day these bankers had asked for this conference, a number of union leaders were received at the White House and spent much time in discussing their affairs and plans. Times certainly have changed for the better. Our President is not afraid to meet men of every class. In fact, he recognizes no class, and the banker is to him an American citizen, who is doing his best to bring order out of the chaos precipitated by the war and its aftermath. He meets the financier and the workmen on the same plane. He patronizes neither, and he does not seek prestige from either. President Harding apparently understands that he is the President of all the people, and he also recognizes the fact that we are confronted today with a great financial crisis in which the intelligence and training of bankers is a necessary factor in the solution. This is as it should be, and it is reassuring to note that all sorts and conditions of men may visit the White House provided they have actual business, that they will be accorded hearing, and their representations given the necessary consideration."



1,370,601—*R. Luckenbach*, Philadelphia, Pa., assigned to Luckenbach Processes, Inc., March 8.

APPARATUS FOR CONCENTRATING ORE using gravity separation, and a porous body comprising material to which the mineral values will adhere and means for exerting air pressure on the pulp for forcing it through the porous body.

1,370,843—*R. E. Sayre*, Pittsburgh, Pa., assigned to Metals Recovery Co., March 8.

FLOTATION PROCESS comprising adding to the pulp a small amount of a ketone condensation product.

1,370,904—*N. A. Neudick*, Columbus, Ohio, assigned to J. E. Jones, March 8.

LOADING MACHINE more particularly intended to load coal in the mine into the mine cars. A primary object of the invention is to provide a single unit loading machine of the character indicated, constructed in such manner that the discharge end of the gathering conveyor may be maintained in operative position with respect to the mine car, even though the truck of the loading machine and the mine car may be located upon a sharp curve. In machines of this character it is necessary to provide sufficient overhang of the gathering conveyor at the rear of its supporting truck to permit the mine car to be manipulated underneath to distribute the load evenly within the mine car. It is apparent that with sufficient overhang to permit the manipulation of a mine car of even moderate length beneath the discharge end of the conveyor, such discharge end will, if the curvature of the track is such as to cause the truck and the mine car to lie at an angle with respect to each other, tend to move laterally beyond the track and consequently beyond the mine car.

The present invention contemplates the provision of a single unit loading machine in which means are provided for permitting the support upon which the gathering conveyor is pivotally supported from its truck, to be shifted bodily laterally to compensate for the tendency of the discharge end of the gathering conveyor to move laterally beyond the mine car under the conditions set forth, whereby such discharge end will be maintained in a position to discharge into the mine car, irrespective of how sharp the curve may be upon which the work is being done.

1,371,314—*N. D. Levin*, Columbus, Ohio, assigned to Jeffrey Mfg. Co., March 15.

MINING MACHINE particularly of that class which is provided with an elongated cutter arm adapted to be thrust longitudinally into the coal and to then be moved laterally across the face to undercut the coal preparatory to breaking it out of its natural bed.

The special object of the invention is to provide, in a machine of the class described, improved gearing and arrangement of parts which shall combine maximum efficiency with extreme convenience of operation.

CONDUCTED BY JOHN BOYLE, JR.

1,371,344—*J. C. Brackett*, Chicago, Ill., assigned to Middlemiss and Brackett, March 15.

SHOVELING AND LOADING MACHINE adapted to work in mines having restricted head room, of the swinging lever type adaptable for overhead or lateral delivery of material which, while illustrated in a hand-operated embodiment, may readily be arranged for automatic action. The operating cylinders are connectible in various manners to permit alteration of a given machine for separate conditions of operation, and for permitting manufacture from a nearly standard design of a varied line of apparatus comprising types of quite different characteristics, each adaptable for different classes of work.

1,371,345—*J. C. Brackett*, Chicago, Ill., assigned to Middlemiss and Brackett, March 15.

SHOVELING AND LOADING MACHINE comprising a motor mounted on a carriage and operating the shovel to cause it to make a reciprocating digging stroke followed by a load delivery stroke.

1,371,409—*A. Christensen*, Stockton, Calif., March 15.

CONCENTRATOR particularly intended to be used when extracting the metals from sand, gravel and the like, with the aid of a stream of water and for use in conjunction with the ordinary water filled sluice box.

1,371,503—*P. H. Mack*, Bradford, Pa., assigned to Oil Well Supply Co., March 15.

WELL PACKER.

1,372,500—*J. F. Gamille*, Frederick Town, Pa., March 22.

MINING VENTILATING APPLIANCE.

1,372,743—*B. F. Gardner*, Chicago, Ill., March 22.

MEANS FOR LIQUIFYING GUMMY RESIDUES IN OIL BEARING STRATA, comprising electrodes located within the tubing of a plurality of oil wells and means to connect said electrodes in series whereby electric currents will be caused to pass from one well to adjacent wells.

1,372,775—*O. G. Petersen*, Somerset, Ky., March 29.

SHAKER SCREEN APPARATUS. It is an object of the invention to provide certain improvements in the permanent supporting structures or frameworks for the moving parts of coal mine shaker screens and other vibrating apparatus, whereby a sufficient mass will be provided at a minimum expense to counteract, overcome or absorb the effect or action on the supporting framework due to the vibration or movement of the moving parts carried thereby; and whereby maximum strength, durability and permanence of the framework will be attained with easy accessibility to moving parts.

The invention particularly contemplates the provision of an improved concrete supporting framework for apparatus to rapidly handle the large output of coal from the mines and usually to receive coal from a tipple, and screen and size such coal and deliver the same into railroad cars or other vehicles movable beneath the apparatus.

1,373,147—*L. Petroff*, Burgettstown, Pa., March 29.

MINE-SWITCH. This invention has as its object the provision of means whereby the switches of narrow-gauge railroads, such as are used in large factories, mines and the like, may be operated from an advancing car without dismounting or exertion of an attendant.

A further object is to provide means whereby a visible signal is displayed showing that the track ahead is in clear condition, or the reverse.

1,373,820—*J. W. Jones*, Cannock, England, Apr. 5, 1921. Assigned to Haslam & Stretton, Ltd.

MINERS ELECTRIC SAFETY LAMP.

1,373,842—*T. Stretton*, Cardiff, Wales, Apr. 5, 1921. Assigned to Haslam & Stretton, Ltd. MINER'S ELECTRIC SAFETY LAMP.

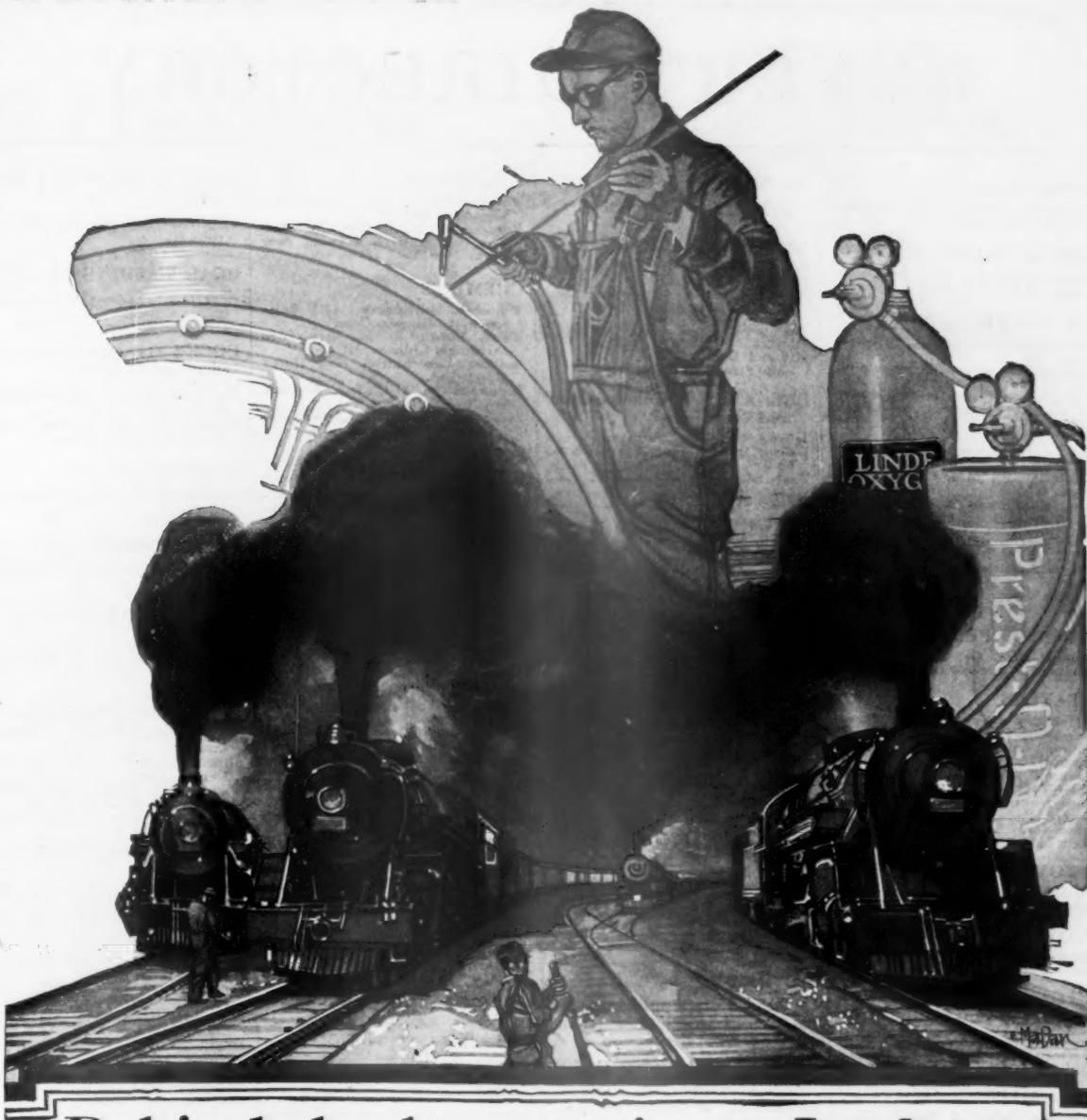
1,374,410—*M. Jorgensen*, Frederiksberg, Denmark, Apr. 12, 1921. Assigned to F. L. Smith & Co., New York.

The present invention has for its object firstly to limit the function of the mill to its real specialty, the crushing, and secondly to fit up the sifting system for separating off the sufficiently crushed material in such a way that the sieve will actually act as the desired regulator for the crushing fineness.

For the first purpose the mill is furnished with an outlet bottom having peripherally arranged slits through which the material leaves the mill without having been sifted as soon as it has traveled through the drum, and for the second purpose, the attainment of an efficient sifting action, a special arrangement has been made by means of which the material is led onto a sieve and back from the same by various paths in a continuous course, a circulation being arranged from the mill through a sifting drum and by another path from this back to the mill.

1,374,422—*G. A. Bragg*, Thompson, Nevada, Apr. 12, 1921. Assigned to Texas Gulf Sulphur Co.

METHOD OF RECOVERING SULPHUR FROM ITS ORES, which comprises heating an ore pulp made up of a mixture of the finely divided ore in a suitable liquid medium, to the melting point of the sulphur contained in the ore pulp, agitating the mass so as to cause coalescence of individual melted sulphur particles into aggregates larger than the gangue particles, solidifying the sulphur aggregates thus formed, and ultimately separating the solidified sulphur from the gangue.



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# BUYER'S DIRECTORY

## ACID, SULPHURIC

Irvington Smelting & Refining Works, Irvington, N. J.

## AERIAL TRAMWAYS

American Steel & Wire Co., Chicago and New York.

## AIR COMPRESSORS

Allis-Chalmers Mfg. Co., Milwaukee, Wis.  
General Electric Co., Schenectady, N. Y.  
Worthington Pump & Machinery Corp., 115 Broadway, New York City.

## AMALGAMATORS

Allis-Chalmers Mfg. Co., Milwaukee, Wis.  
Mine Equipment & Supply Co., Denver, Colo.

## ARMATURES

General Electric Co., Schenectady, N. Y.  
Westinghouse Elec. & Mfg. Co., East Pittsburgh, Pa.

## ASBESTOS PRODUCTS

Mikesell Bros. Co., 156 North La Salle St., Chicago, Ill.

## ASSAYERS

Walter E. Burlingame, 1736 Lawrence St., Denver, Colo.  
Indiana Laboratories Co., Hammond, Ind.  
Ledoux & Co., Inc., 99 John St., New York.  
Pennsylvania Smelting Co., Pittsburgh, Pa.  
Union Assay Office, Inc., Box 1446, Salt Lake City, Utah.

## AUTOMATIC CAR CAGERS

Connellsville Mfg. & Mine Supply Co., Connellsville, Pa.

## AUTOMATIC COAL SKIP

Roberts & Schaefer Co., McCormick Bldg., Chicago, Ill.

## AUTOMATIC (Mine Doors, Truck and Electric Switches)

American Mine Door Co., Canton, Ohio.

## BALL MILLS

Mine Equipment & Supply Co., Denver, Colo.  
Worthington Pump & Machinery Corp., 115 Broadway, New York City.

## BATTERY-CHARGING EQUIPMENT

General Electric Co., Schenectady, N. Y.

## BELTING (Conveyor, Elevator, Transmission)

Jeffery Mfg. Co., 958 N. Fourth Avenue, Columbus, Ohio.

## BELTING, SILENT CHAIN

Morse Chain Co., Ithaca, N. Y.

## BINS (Coke and Coal)

Jeffrey Mfg. Co., Columbus, Ohio.

## BIT SHARPENERS

Denver Rock Drill Mfg. Co., Denver, Colo.

## BLASTING SUPPLIES

du Pont Powder Co., The E. I. du Pont de Nemours & Co., Wilmington, Del.

Heuerles Powder Co., Wilmington, Del.

National Fuse & Powder Co., Denver, Colo.

## BLOWERS

General Electric Co., Schenectady, N. Y.

## BOILERS

Allis-Chalmers Mfg. Co., Milwaukee, Wis. (feed pump).  
Mine Equipment & Supply Co., Denver, Colo.

## BRATTICE CLOTH

Mikesell Brothers Co., 156 N. La Salle Street, Chicago, Ill.

## BREAKERS (Construction and Machinery)

Jeffrey Mfg. Co., Columbus, Ohio.  
Vulcan Iron Works, Wilkes-Barre, Pa.  
Westinghouse Elec. & Mfg. Co., East Pittsburgh, Pa.  
Wilmet Engineering Co., Hazleton, Pa.

## BRIQUETTING MACH.

Jeffrey Mfg. Co., Columbus, Ohio.

## BUCKETS (Elevator)

Hendrick Manufacturing Company, Carbondale, Penna.  
Jeffrey Mfg. Co., Columbus, Ohio.  
Stephens-Adamson Mfg. Co., Aurora, Ill.

## CABLES (Connectors and Guides)

American Mine Door Co., Canton, Ohio.

## CABLEWAYS

Jeffrey Mfg. Co., Columbus, Ohio.  
Lidgerwood Mfg. Co., 96 Liberty St., New York City.

## CAGES

Car-Dumper & Equipment Co., Chicago, Ill.  
Connellsville Mfg. & Mine Supply Co., Connellsville, Pa.  
Holmes & Bros., Robert, Inc., Danville, Ill.  
Lidgerwood Mfg. Co., 96 Liberty St., New York City.

## CAGE (Safety Appliances)

Connellsville Mfg. & Mine Supply Co., Connellsville, Pa.

## CAR CONTROL AND CAGE EQUIPMENT

Car-Dumper & Equipment Co., Chicago, Ill.

## CAR DUMPS

Car-Dumper & Equipment Co., Chicago, Ill.

## CAR AND CAR WHEELS

Hockenmuth Mine Car Co., Penn Station, Pa.  
United Iron Works Co., Kansas City, Mo.  
Watt Mining Car Wheel Co., Barnesville, Ohio.

## CAR-HAULS

Car-Dumper & Equipment Co., Chicago, Ill.

## CASTINGS

Jeffrey Mfg. Co., 958 N. Fourth Street, Columbus, Ohio.

The Lunkenstein Co., Cincinnati, Ohio.

Mine Equipment & Supply Co., Denver, Colo.

## CHAINS

Jeffrey Mfg. Co., Columbus, Ohio.  
Morse Chain Co., Ithaca, N. Y.

Stephens-Adamson Mfg. Co., Aurora, Ill.

## CHEMICALS

The Barrett Company, 90 West St., New York City.  
Rosenau & Hasslacher Chemical Co., 709-717 Sixtieth Avenue, New York.

## CHEMISTS

Walter E. Burlingame, 1736 Lawrence St., Denver, Colo.  
Hunt, Robt., & Co., Insurance Exchange, Chicago, Ill.  
Indiana Laboratories Co., Hammond, Ind.  
Ledoux & Co., A. R., Inc., 99 John St., New York City.  
Union Assay Office, Inc., Box 1446, Salt Lake City, Utah.

## CIRCUIT BREAKERS

Automatic Reclosing Circuit Breaker Co., The Columbus, O., General Electric Co., Schenectady, N. Y.

## CLAMPS (Trolley)

Ohio Brass Co., Mansfield, Ohio.

## CLUTCHES

Connellsville Mfg. & Mine Supply Co., Connellsville, Pa.

## COAL COMPANIES

Clinchfield Coal Corp., Dante, Va.  
Lehigh Coal & Navigation Co., Philadelphia, Pa.  
Stonega Coal & Coke Co., Philadelphia, Pa.  
Thorne, Neale & Co., Philadelphia, Pa.  
Wholesale Coal Co., Pittsburgh, Pa.

## COAL CRUSHERS

Connellsville Mfg. & Mine Supply Co., Connellsville, Pa.  
Jeffrey Mfg. Co., Columbus, O.  
Stephens-Adamson Mfg. Co., Aurora, Ill.

## COAL CUTTERS

Goodman Mfg. Co., Chicago, Ill.  
Jeffrey Mfg. Co., Columbus, Ohio.

## COAL DRYING PLANTS

Roberts & Schaefer Co., McCormick Bldg., Chicago, Ill.

## COAL HANDLING MACHINERY

Jeffrey Mfg. Co., Columbus, Ohio.  
Lidgerwood Mfg. Co., 96 Liberty St., New York City.

Roberts & Schaefer Co., McCormick Bldg., Chicago, Ill.

Stephens-Adamson Mfg. Co., Aurora, Ill.

Watt Mining Car Wheel Co., Barnesville, Ohio.

## COAL LOADING MACHINES

Myers-Whaley Company, Knoxville, Tenn.

## COAL MINING MACHINERY

Allis-Chalmers Mfg. Co., Milwaukee, Wis.

Goodman Mfg. Co., Chicago, Ill.

Jeffrey Mfg. Co., Columbus, Ohio.

Roberts & Schaefer Co., McCormick Bldg., Chicago, Ill.

## COAL MINE POWER PLANTS

Roberts & Schaefer Co., McCormick Bldg., Chicago, Ill.

## COAL MINING PLANTS

Roberts & Schaefer Co., McCormick Bldg., Chicago, Ill.

## COAL WASHING MACHINERY

Stephens-Adamson Mfg. Co., Aurora, Ill.

## COAL WASHING PLANTS

Roberts & Schaefer Co., McCormick Bldg., Chicago, Ill.

## COCKS (Locomotive, Cylinder and Gauge)

The Lunkenstein Co., Cincinnati, Ohio.  
Nicholson, W. H., & Co., Wilkes-Barre, Pa.

## COILS (Choke)

General Electric Co., Schenectady, N. Y.

## COMPRESSORS, AIR

General Electric Co., Schenectady, N. Y.

## CONCENTRATORS (Magnetic)

Worthington Pump & Machinery Corp., 115 Broadway, New York City.

## CONCENTRATORS (Table)

Allis-Chalmers Mfg. Co., Milwaukee, Wis.  
Mine Equipment & Supply Co., Denver, Colo.

Worthington Pump & Machinery Corp., 115 Broadway, New York City.

## CONCRETE REINFORCEMENT

American Steel & Wire Co., Chicago and New York.

## CONDENSERS

Allis-Chalmers Mfg. Co., Milwaukee, Wis.  
Westinghouse Elec. & Mfg. Co., East Pittsburgh, Pa.

Worthington Pump & Machinery Corp., 115 Broadway, New York City.

## CONSULTING ENGINEERS

Roberts & Schaefer Co., McCormick Bldg., Chicago, Ill.

Shourds-Stoner Co., Inc., Terre Haute, Ind.

## CONTRACTORS

Roberts & Schaefer Co., McCormick Bldg., Chicago, Ill.

## CONTROLLERS

General Electric Co., Schenectady, N. Y.

Goodman Manufacturing Co., Haledon St. and 48th Place, Chicago, Ill.

Westinghouse Elec. & Mfg. Co., East Pittsburgh, Pa.

## CONVEYORS, BELT

Jeffrey Mfg. Co., 958 N. Fourth St., Columbus, Ohio.

Stephens-Adamson Mfg. Co., Aurora, Ill.

## CONVEYORS, CHAIN FLIGHT

Jeffrey Mfg. Co., 958 N. Fourth St., Columbus, Ohio.

Wilmet Engineering Co., Hazleton, Pa.

Stephens-Adamson Mfg. Co., Aurora, Ill.

## Why the Fort Wayne?

THE adaptability of the Fort Wayne Electric Rock Drill is a constant source of enthusiastic comment.

The Fort Wayne may be operated on either direct or alternating current. Thus it is ready for business wherever electric current is available. You can hook it onto the trolley within a few minutes after it is unloaded.

As one rock man said, "We can stick it up, attach a line to the trolley, another to the rail, and go right ahead." And the way those rotary hammers tear into the rock is a joy to see. No power wasted—just pure energy properly directed—1700 blows a minute—each blow 150 pounds to the square inch.

Moving entails no expense or burden—one man can do it if necessary. "For many jobs," says a mine superintendent who knows, "we don't even have to take the Wayne off the truck."

There are many other reasons why you cannot afford to get along without the Fort Wayne Electric Rock Drill if you have any amount of rock work to do.



*Let us tell you all about this great Drill and its work—our literature will prove interesting and instructive, and we'll gladly send it for the asking.*

ELECTRICAL HEADQUARTERS

**Union Electric Company, PITTSBURGH, PA.**



*Reduce the cost  
of Lubrication*

## Superla Grease

Superla Mine Car Greases are made in three grades, differing in consistency only, not in quality; they are applied to the wheels by pressure reaching every part and crevice that should be lubricated.

Superla Mine Car Greases are made specially for mine cars. Oily lubricants either feed too freely, running out of the bearings shortly after being applied, giving no service whatever, or they do not feed sufficiently, the difficulty not being detected until great damage to wheels and axles has taken place.

"Mine Car Lubrication" is the title of a booklet prepared by our Engineering Department, it describes the various types of mine car equipment in use and tells which lubricant is best adapted to the kind of equipment you use.

*This booklet sent free on request.*

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(INDIANA)  
910 So. MICHIGAN AVE. CHICAGO

**CONVEYORS, COAL**

Jeffrey Mfg. Co., 958 N. Fourth St., Columbus, Ohio.  
Lidgerwood Mfg. Co., 96 Liberty St., New York City.  
Stephens-Adamson Mfg. Co., Aurora, Ill.

**CONVEYORS AND ELEVATORS**

Jeffrey Mfg. Co., Columbus, Ohio.  
Stephens-Adamson Mfg. Co., Aurora, Ill.

**CONVEYORS, PAN OR APRON**

Jeffrey Mfg. Co., 958 N. Fourth St., Columbus, Ohio.  
Stephens-Adamson Mfg. Co., Aurora, Ill.

**CONVEYORS, PANS AND FLIGHTS**

Hendrick Manufacturing Company, Carbondale, Pa.

**CONVEYORS, SCREW**

Jeffrey Mfg. Co., 958 N. Fourth St., Columbus, Ohio.  
Stephens-Adamson Mfg. Co., Aurora, Ill.

**COPPER ELECTROLYTIC**

United Metals Selling Co., 42 Broadway, New York City.

**COPPER WIRE**

Anaconda Copper Mining Co., 111 W. Washington St., Chicago, Ill.

**CORE DRILLING**

H. R. Ameling Prospecting Co., St. Louis, Mo.  
Hoffman Bros., Punxsutawney, Pa.

**COUPLINGS**

Nicholson, W. H., & Co., Wilkes-Barre, Pa.

**CRUSHERS**

Allis-Chalmers Mfg. Co., Milwaukee, Wis.  
Jeffrey Mfg. Co., 958 N. Fourth St., Columbus, Ohio.  
Mine Equipment & Supply Co., Denver, Colo.  
Stephens-Adamson Mfg. Co., Aurora, Ill.  
United Iron Works Co., Kansas City, Mo.  
Worthington Pump & Machinery Corp., 115 Broadway, New York City.

**CRUSHERS, COAL**

Connellsville Mfg. & Mine Supply Co., Connellsville, Pa.  
Jeffrey Mfg. Co., 958 N. Fourth St., Columbus, Ohio.  
Stephens-Adamson Mfg. Co., Aurora, Ill.  
United Iron Works Co., Kansas City, Mo.

**CRUSHING PLANTS, COKE**

Jeffrey Mfg. Co., 958 N. Fourth St., Columbus, Ohio.

**CYANIDE**

American Cyanamid Co., New York, N. Y.  
Borsig and Haaslacher Chemical Company, 709 Sixth Avenue, New York City.

**DERRICKS AND DERRICK FITTINGS**

James H. Channon Mfg. Co., 227 W. Erie St., Chicago, Ill.

**DESIGNERS OF PLANTS**

Jeffrey Mfg. Co., 958 N. Fourth St., Columbus, Ohio.  
Mine Equipment & Supply Co., Denver, Colo.  
Roberts & Schaefer Co., McCormick Bldg., Chicago, Ill.

**DIAMOND CORE DRILL CONTRACTING**

Hoffman Bros., Punxsutawney, Pa.

**DOORS, AUTOMATIC MINE**

American Mine Door Co., Canton, Ohio.

**DRAG LINES**

Denver Rock Drill Mfg. Co., Denver, Colo.

**DREDGES, GOLD AND TIN**

New York Engineering Co., 2 Recor St., New York City.

**DRIFTERS, DRILL**

Denver Rock Drill Mfg. Co., Denver, Colo.

Ingersoll-Rand Co., New York City.

**DRILLS (Blast Hole)**

Denver Rock Drill Mfg. Co., Denver, Colo.

Ingersoll-Rand Co., New York City.

**DRILLS, CORE**

Hoffman Bros., Punxsutawney, Pa.  
Ingersoll-Rand Co., New York City.

**DRILLS, ELECTRIC**

General Electric Co., Schenectady, N. Y.

Ingersoll-Rand Co., New York City.

**DRILLS, CORE**

General Electric Co., Schenectady, N. Y.

Ingersoll-Rand Co., New York City.

**DRILLS, HAMMER**

Denver Rock Drill Mfg. Co., Denver, Colo.

Ingersoll-Rand Co., New York City.

**DRILLS (Hand Operated Coal)**

Ohio Brass Co., Mansfield, Ohio.

Ingersoll-Rand Co., New York City.

**DRILLS, PNEUMATIC**

Denver Rock Drill Mfg. Co., Denver, Colo.

Ingersoll-Rand Co., New York City.

**DRILLS, PROSPECTING**

Hoffman Bros., Punxsutawney, Pa.  
New York Engineering Co., 2 Recor St., New York City.

**DRILLS, ROCK**

Denver Rock Drill Mfg. Co., Denver, Colo.

General Electric Co., Schenectady, N. Y.

Ingersoll-Rand Co., New York City.

Union Electric Co., Pittsburgh, Pa.

**DRILL STEEL SHARPENERS**

Denver Rock Drill Mfg. Co., Denver, Colo.

**DRIVES, SILENT CHAIN**

Morse Chain Co., Ithaca, N. Y.

**DRUMS (Hoisting, Haulage)**

Connellsville Mfg. & Mine Supply Co., Connellsville, Pa.

**DRYERS, ORE**

Allis-Chalmers Mfg. Co., Milwaukee, Wis.

**DUMPERS, ROTARY**

Car-Dumper & Equipment Co., Chicago, Ill.

**DUMP CARS**

Connellsville Mfg. & Mine Supply Co., Connellsville, Pa.

**DYNAMITE**

du Pont Powder Co., The E. I. Wilmington, Del.

Hercules Powder Co., Wilmington, Del.

National Fuse & Powder Co., Denver, Colo.

**DYNAMOS**

General Electric Co., Schenectady, N. Y.

Goodman Mfg. Co., Forty-eighth Place and Halsted St., Chicago, Ill.

Westinghouse Elec. & Mfg. Co., East Pittsburgh, Pa.

**ELECTRICAL APPARATUS**

Allis-Chalmers Mfg. Co., Milwaukee, Wis.  
General Electric Co., Schenectady, N. Y.  
Westinghouse Elec. & Mfg. Co., East Pittsburgh, Pa.

**ELECTRIC HOISTING MACHINERY**

Jeffrey Mfg. Co., 958 N. Fourth St., Columbus, Ohio.

**ELECTRIC LOCOMOTIVES**

General Electric Co., Schenectady, N. Y.

Goodman Mfg. Co., Forty-eighth Place and Halsted St., Chicago, Ill.

Jeffrey Mfg. Co., 958 N. Fourth St., Columbus, Ohio.

Ohio Brass Co., Mansfield, Ohio.

Westinghouse Elec. & Mfg. Co., East Pittsburgh, Pa.

**ELECTRIC MINE SUPPLIES**

General Electric Co., Schenectady, N. Y.

Ohio Brass Co., Mansfield, Ohio.

**ELECTRICAL SUPPLIES**

General Electric Co., Schenectady, N. Y.

Union Electric Co., Pittsburgh, Pa.  
Westinghouse Elec. & Mfg. Co., East Pittsburgh, Pa.

**ELEVATORS**

Jeffrey Mfg. Co., 958 N. Fourth St., Columbus, Ohio.

Stephens-Adamson Mfg. Co., Aurora, Ill.

**ELEVATORS, BUCKET**

Jeffrey Mfg. Co., 958 N. Fourth St., Columbus, Ohio.

Stephens-Adamson Mfg. Co., Aurora, Ill.

**ELEVATOR MACHINERY**

Jeffrey Mfg. Co., 958 N. Fourth St., Columbus, Ohio.

Stephens-Adamson Mfg. Co., Aurora, Ill.

**ELIMINATORS**

Nicholson, W. H., & Co., Wilkes-Barre, Pa.

**ENGINES**

Lidgerwood Mfg. Co., 96 Liberty St., New York City.

Worthington Pump & Machinery Corp., 115 Broadway, New York City.

**ENGINES, GAS AND GASOLINE**

Allis-Chalmers Mfg. Co., Milwaukee, Wis.

Mine Equipment & Supply Co., Denver, Colo.

Worthington Pump & Machinery Corp., 115 Broadway, New York City.

**ENGINES (Hoisting and Hauling)**

Connellsville Mfg. & Mine Supply Co., Connellsville, Pa.

**ENGINES, OIL**

Allis-Chalmers Mfg. Co., Milwaukee, Wis.

Mine Equipment & Supply Co., Denver, Colo.

Westinghouse Elec. & Mfg. Co., East Pittsburgh, Pa.

Worthington Pump & Machinery Corp., 115 Broadway, New York City.

**ENGINES, STEAM**

Allis-Chalmers Mfg. Co., Milwaukee, Wis.

**ENGINEERS**

H. R. Ameling Prospecting Co., St. Louis, Mo.

Hunt, Robert & Co., Insurance Exchange, Chicago, Ill.

Indiana Laboratories Co., Hammond, Ind.

Jeffrey Mfg. Co., 958 N. Fourth St., Columbus, Ohio.

Roberts & Schaefer Co., McCormick Bldg., Chicago, Ill.

**GEARS, SILENT CHAIN**

Morse Chain Co., Ithaca, N. Y.

**GENERAL SHEET AND LIGHT STRUCTURAL WORK**

Hendrick Mfg. Co., Carbondale, Pa.

**GENERATORS AND GENERATING SETS**

Allis-Chalmers Mfg. Co., Milwaukee, Wis.

General Electric Co., Schenectady, N. Y.

Westinghouse Elec. & Mfg. Co., East Pittsburgh, Pa.

**GRINDING BALLS**

Mine Equipment & Supply Co., Denver, Colo.

**HANGERS (Insulated Trolley)**

Ohio Brass Co., Mansfield, Ohio.

**EXPLOSIVES**

Du Pont Powder Co., Wilmington, Del.  
Hercules Powder Co., Wilmington, Del.  
National Fuse & Powder Co., Denver, Colo.

**FANS, VENTILATING**

Connellsville Mfg. & Mine Supply Co., Connellsville, Pa.

General Electric Co., Schenectady, N. Y.

Jeffrey Mfg. Co., 958 N. Fourth St., Columbus, Ohio.

Vulcan Iron Works, Wilkes-Barre, Pa.

Westinghouse Elec. & Mfg. Co., East Pittsburgh, Pa.

**FEEDERS, ORE**

Jeffrey Mfg. Co., 958 N. Fourth St., Columbus, Ohio.  
Stephens-Adamson Mfg. Co., Aurora, Ill.

**FILTER CLOTH METALLIC**

United Filters Corp., 65 Broadway, New York City.

**FILTERS, PRESSURE AND CONTINUOUS**

United Filters Corp., 65 Broadway, New York City.

**FILTERS (Water)**

Wm. B. Scaife & Sons Co., Oakmont, Pa.

**FLOTATION OILS**

The Barrett Co., 17 Battery Place, New York City.

General Naval Stores Co., 90 West St., New York City.

**FLOW METERS**

General Electric Co., Schenectady, N. Y.

**FORGINGS**

Allis-Chalmers Mfg. Co., Milwaukee, Wis.

James H. Channon Mfg. Co., 227 W. Erie St., Chicago, Ill.

Mine Equipment & Supply Co., Denver, Colo.

**FORGED STEEL BALLS**

Mine Equipment & Supply Co., Denver, Colo.

**FROGS AND SWITCHES**

Central Frog & Switch Co., Cincinnati, Ohio.

**FURNACES, MECHANICAL ROASTING**

Allis-Chalmers Mfg. Co., Milwaukee, Wis.

**GASKETS**

Mikesell Bros. Co., 156 N. La Salle St., Chicago, Ill.

**GEARS**

General Electric Co., Schenectady, N. Y.

Jeffrey Mfg. Co., Columbus, Ohio.

Stephens-Adamson Mfg. Co., Aurora, Ill.

Westinghouse Elec. & Mfg. Co., East Pittsburgh, Pa.

**GEARS, SILENT CHAIN**

Morse Chain Co., Ithaca, N. Y.

**GENERAL SHEET AND LIGHT STRUCTURAL WORK**

Hendrick Mfg. Co., Carbondale, Pa.

**GENERATORS AND GENERATING SETS**

Allis-Chalmers Mfg. Co., Milwaukee, Wis.

General Electric Co., Schenectady, N. Y.

Westinghouse Elec. & Mfg. Co., East Pittsburgh, Pa.

**GRINDING BALLS**

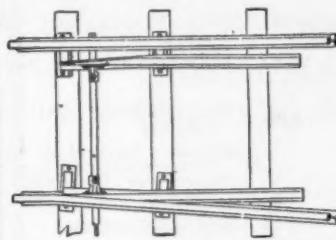
Mine Equipment & Supply Co., Denver, Colo.

**HANGERS (Insulated Trolley)**

Ohio Brass Co., Mansfield, Ohio.

# CENTRAL MINE TRACK EQUIPMENT

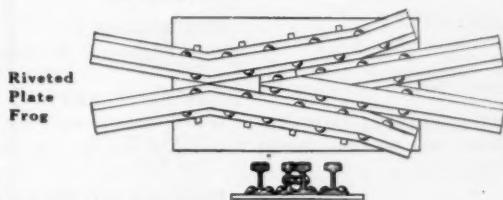
Instead of using 18 to 30-inch latches hammered out of square iron, in your blacksmith shop, use these long latches, cut from standard section rail and carefully planed to the correct shape. Keep your cars on the track—not in the ditch.



Split Switch

Frogs, too, are a prolific source of trouble to the mine manager. Despite the most careful hand work, if constructed in the ordinary way, they get out of line.

CENTRAL frogs are permanently riveted to heavy steel plates.



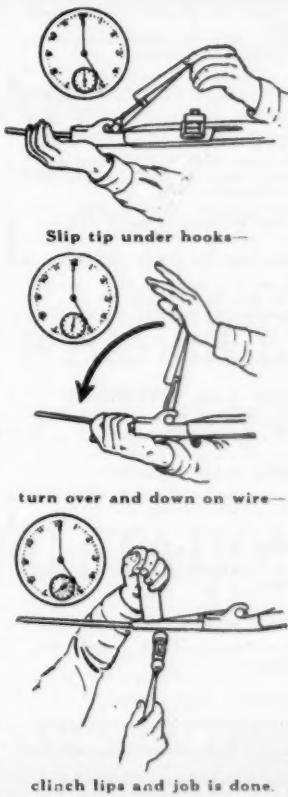
THE CENTRAL FROG & SWITCH CO.  
CINCINNATI, OHIO

## O-B Trolley Frogs with Cam Tips

The pictures at the right can only hint at the ease and speed with which O-B Cam Tips are installed.

Easy, quick installation is valuable, especially when the light is poor. Because it's so easy the job is done better, as well as more quickly.

The Ohio  
Brass Company  
MANSFIELD, OHIO



clinch tips and job is done.

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TO OPEN

CANTON  
AUTOMATIC  
MINE  
DOORS

Safeguard  
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in Operation—  
Open and Close  
Quickly—Sim-  
ple in Con-  
struction—  
Built for Service—Prevent Explosions—Conserve Air.

## ONLY 15 SECONDS

interruption to air circulation when a trip of 25 cars travelling 10 miles per hour passes through our door. PROFIT by 15 years' ex-  
perience and install CANTON AUTOMATIC MINE DOORS.

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Rental price per  
month saved in  
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W. Erie St., Chicago, Ill.

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General Electric Co., Schenectady,  
N. Y.  
Ohio Brass Co., Mansfield, Ohio.

**HOISTS, ELECTRIC**  
Allis-Chalmers Mfg. Co., Milwaukee,  
Wis.  
Connellsville Mfg. & Mine Supply  
Co., Connellsville, Pa.  
Lidgerwood Mfg. Co., 96 Liberty St.,  
New York City.  
Roberts & Schaefer Co., McCormick  
Bldg., Chicago, Ill.  
Vulcan Iron Works, Wilkes-Barre,  
Pa.  
Worthington Pump & Machinery  
Corp., 115 Broadway, New York  
City.

**HOISTS, PORTABLE**  
James H. Channon Mfg. Co., 227  
W. Erie St., Chicago, Ill.  
Lidgerwood Mfg. Co., 96 Liberty St.,  
New York City.  
Stephens-Adamson Mfg. Co., Aurora,  
Ill.

**HOISTS, STEAM**  
Allis-Chalmers Mfg. Co., Milwaukee,  
Wis.  
Connellsville Mfg. & Mine Supply  
Co., Connellsville, Pa.  
Lidgerwood Mfg. Co., 96 Liberty St.,  
New York City.  
United Iron Works Co., Kansas  
City, Mo.  
Vulcan Iron Works, Wilkes-Barre,  
Pa.

**HOISTS (Room & Gathering)**  
Connellsville Mfg. & Mine Supply  
Co., Connellsville, Pa.  
Holmes, Robert & Bros., Inc.,  
Danville, Ill.  
Lidgerwood Mfg. Co., 96 Liberty St.,  
New York City.

**HOISTING ROPES**  
Connellsville Mfg. & Mine Supply  
Co., Connellsville, Pa.

**HYDRAULIC MACHINERY**  
Allis-Chalmers Mfg. Co., Milwaukee,  
Wis.  
Car-Dumper & Equipment Co.,  
Chicago, Ill.  
Worthington Pump & Machinery  
Corp., 115 Broadway, New York  
City

**INDUSTRIAL HOUSING**  
General Electric Co., Schenectady,  
N. Y.

**INSTRUMENTS, ELECTRICAL**  
General Electric Co., Schenectady,  
N. Y.

**INSULATING MATERIAL,  
ELECTRIC**  
General Electric Co., Schenectady,  
N. Y.  
Mikesell Bros. Co., 156 N. La Salle  
St., Chicago, Ill.

**INSULATING TAPE AND  
CLOTH**  
General Electric Co., Schenectady,  
N. Y.  
Mikesell Bros. Co., 156 N. La Salle  
St., Chicago, Ill.

**INSULATORS, FEEDER  
WIRE**  
General Electric Co., Schenectady,  
N. Y.  
Ohio Brass Co., Mansfield, Ohio.  
Westinghouse Elec. & Mfg. Co.,  
East Pittsburgh, Pa.

**INSULATORS, SECTION**  
General Electric Co., Schenectady,  
N. Y.  
Ohio Brass Co., Mansfield, Ohio.  
Westinghouse Elec. & Mfg. Co.,  
East Pittsburgh, Pa.

**INSULATORS (Porcelain)**  
General Electric Co., Schenectady,  
N. Y.  
Ohio Brass Co., Mansfield, Ohio.  
Westinghouse Elec. & Mfg. Co.,  
East Pittsburgh, Pa.

**INSULATORS (Third Rail)**  
General Electric Co., Schenectady,  
N. Y.  
Ohio Brass Co., Mansfield, Ohio.

**INSULATORS (Trolley)**  
General Electric Co., Schenectady,  
N. Y.  
Ohio Brass Co., Mansfield, Ohio.

**INSULATED WIRE AND  
CABLE**

American Steel & Wire Co., Chicago,  
Ill.  
Roebling Sons, John A., Trenton,  
N. J.

**JACKS**  
James H. Channon Mfg. Co., 227  
W. Erie St., Chicago, Ill.

**JIGS**  
Mine Equipment & Supply Co.,  
Denver, Colo.

**KILNS (Rotary)**  
Allis-Chalmers Mfg. Co., Milwaukee,  
Wis.

**KILNS (Rotary Ore Nodul-  
izers)**  
Allis-Chalmers Mfg. Co., Milwaukee,  
Wis.

**LAMPS, ARC AND INCAN-  
DESCENT**  
General Electric Co., Schenectady,  
N. Y.  
Westinghouse Elec. & Mfg. Co.,  
East Pittsburgh, Pa.

**LAMPS (Carbon)**  
General Electric Co., Schenectady,  
N. Y.

**LAMPS, ELECTRIC**  
General Electric Co., Schenectady,  
N. Y.  
Westinghouse Elec. & Mfg. Co.,  
East Pittsburgh, Pa.

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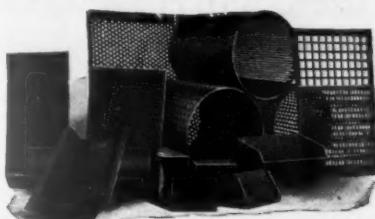
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## *Why?*

Because nothing worth while can be accomplished without

## *Cooperation*

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## *When?*

Right now. Your assistance is needed more than it ever has been, to secure for the mining industry proper recognition of its importance in National

## *Reconstruction*

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## *Where?*

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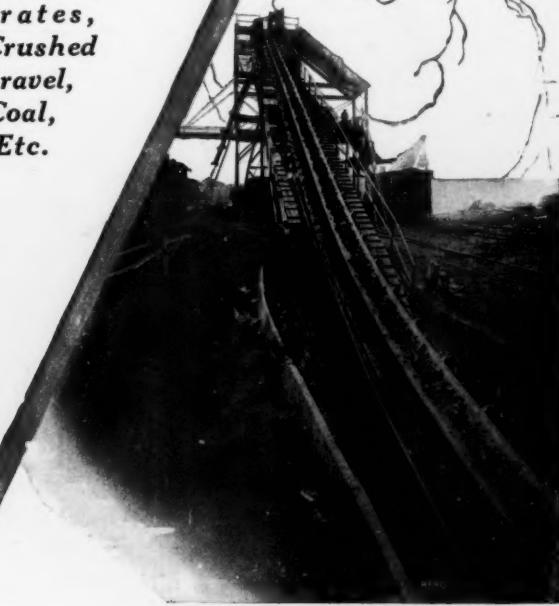
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